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Part 1. Psychotherapy v. Medications: Let Us Count The Ways

By John Caccavale. Ph.D.

For over seven years, NAPPP has been a leader in questioning the efficacy and safety of psychotropic medications. Many of us question these drugs, not because we are opposed to the use of medications, per se, but as trained clinical psychopharmacologists and board certified medical psychologists. When we started our Truthindrugs Campaign several years ago, we were called "anti-physician," "saboteurs of the RxP movement," and any number of names by colleagues who simply had little understanding about the nature of these drugs and the strengths of psychotherapy. I, like many of my medical psychology colleagues who questioned psychotropics, did so because our post-doctoral training in clinical psychopharmacology provided the foundation for us to substantiate our claims that these drugs were not what manufacturers, the FDA, and physicians say they are.

Over the past seven years, essentially every claim that we made opposing antidepressants, neuroleptics, psychostimulants, anxiolytics, and prescribing practices are now supported by a growing accumulation of research. The White Paper that we authored in 2010 remains almost prophetic in detailing why psychotherapy is a better first line treatment. Our Model RXP Legislation remains the only model legislation that is based upon the available science supporting why, when, and how psychotropics should be used. We make these statements not to pat our proverbial backs. Instead, we need psychologists, who are not trained in psychopharmacology to have the documentation to support and argue for psychotherapy, which is in decline even though there is a trove of research supporting its efficacy and long term cost effectiveness over medications.

How Safe Are Psychotropics?

The most recent studies concerning the safety of antidepressants, for example, show that they pose a significant risk to patients. One recent study, for example, shows that there is a significant risk for hip fractures with the continued use of antidepressants [1]. The relationship between depression and cardiovascular problems is now well known [2]. Yet the currently available drugs cannot permanently alleviate the symptoms of mental disorders. The many side effects related to prolonged use are well documented. Further, psychotherapy is more effective and without the risk of harm that occur with psychotropics [3]. One of the most significant recent finding is that SSRIs are now linked to congenital abnormalities when used by pregnant women [4].

So why are medications, with all their drawbacks and associated harm utilized when psychotherapy is more effective? The answer is simple: Drug company money and the unlimited licensing of physicians. The largest expenditure of drug company monies is for advertising [5]. The unlimited licensing afforded only to physicians, allows them to prescribe drugs off-label, prescribe solely on the advice of drug company representatives, and decide and control what treatments their patients receive. They literally can disregard any scientific rationale for their treatment choice as long as they can cite some bogus study provided by the drug company. In almost every case, they are also shielded from liability if they are relying upon even limited FDA approval. Since there is no

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requirement for physicians to refer patients to psychologists, in most cases, they don't.

Unless one is an assertive psychologist in the mold of a Nick Cummings or Jerry Morris, and willing to confront physicians and insurers with the facts as opposed to drug company propaganda, psychotherapy will continue to decline. If you look at the references I cite below, you will see that many of the studies are from researchers who are outside the USA. The Europeans have become the leaders in confronting drug company assertions about medications. This is one reason why they are committed to demonstrating the validity of neural plasticity when explaining the efficacy of psychotherapy [6]. Moreover, Europeans are far more skeptical about using psychotropic medications as a first line treatment. In part two of this article, which will appear in the March issue, I will address the research demonstrating and supporting the superiority of psychotherapy over medication treatment.

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WARNING: Having your family physician treat depression can be harmful to your health.

There is a health care crisis no one is talking about: physicians treating patients complaining of behavioral disorders with medications the doctors know, or should know, are no more effective than sugar pills.

Instead of referring patients to a doctoral level mental health professional who can evaluate and correctly diagnose patients with behavioral disorders, many physicians consign their patients to long-term pharmaceutical treatment, often prescribing multiple medications that have never been tested in combination.

Physicians are well trained in treating physical diseases. But most get only a few weeks of training in diagnosing and evaluating mental illness. And the average physician has less than 90 hours of training in pharmacology. Doctoral psychologists, on the other hand, have an average of six years training beyond a bachelor's degree plus an additional 3000 to 4000 hours of internship. So, every day, physicians, who are untrained and lack the expertise to diagnose possible mental health problems, are prescribing a drug or drugs, which do not work, for a condition the patient may not even have.

Drug companies make billions from the sale of these medications, spend vast sums on advertising to convince consumers that these drugs are the answer to their problems, and provide perks and incentives for physicians to prescribe them. This is a prescription for disaster that denies patients the proven treatment they deserve.

If this is not malpractice, it's at the very least, bad medicine.

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For more information on these issues, visit our website at www.truthindrugs.com

If you are a doctoral level clinical psychologist and would like to help us build public support for more effective treatment, we invite you to visit the website for the National Alliance of Professional Psychology Providers, which paid for this ad. **Go to www.NAPPP.org**

Neuropsychological Symptoms and Heavy Metals

By David Reinhardt, Ph.D.

Headlines in the popular press (and drug sponsored journals) shout that the link between autism and vaccines has been "disproven." People who don't believe being injected with mercury compounds are labeled "anti-vaxxers" and ridiculed. The most widely cited meta-analysis on the issue found "no relationship between mercury and autism." (Vaccines are not associated with autism: An evidence-based meta-analysis of case-control and cohort studies, Taylor et al) Although there are well designed and controlled studies that have found a link, statistical techniques seemed to invalidate them. But is this position supported by the facts?

Autism is a diagnostic label assigned to a collection of symptoms rather than causes. As psychologists, we have been confronted by multiple years of training in statistics and study design (the only health professionals to do so!), and should be on the front line to voice our opinions: is this meta-analysis hubris or is it sound?

We do not know the cause of autism symptoms

We suspect there are many causes, and perhaps each of these causes merits its own diagnostic label. Consider the magnitude of the problem of assigning (or ruling out) any one cause. Nearly any brain assault can have symptoms consistent with one or more autism-like symptoms. Holding neuronal damage as the dependent variable (rather than the artificial label autism), consider the number of independent variables that must be factored in order to state "mercury is not related to autism": physical injury, including lesions; infectious agents including bacteria, viruses, prions, and parasites; nutritional deficiencies; exposure to environmental agents such as diesel exhaust, exposure to agricultural chemicals, food preservatives and 'enhancements"; metabolic disorders; hypoxia; drug abuse and exposure; endocrine disorders; and arrested metabolic processes caused by genetically driven nutritional deficiencies. Add to this the potentially vast number of unknown neurotoxic agents and causes. A claim that this meta-analysis factored out these variables seems bizarre at best, given the well-known, well established neurotoxicity of mercury.

At issue, in my mind, is not whether mercury can be proven (or disproven) to cause the synthetic label "autism" but rather if there is sufficient evidence to support blocking drug companies from putting mercury (and other neurotoxic metals) into vaccines.

Two revealing studies

Two recent studies force open the well protected doors of vaccine manufacturers, who continue to promote the unnecessary but legal injection of mercury compounds directly into the bodies of both children and adults:

Blood–brain barrier and intestinal epithelial barrier alterations in autism spectrum disorders

Autism spectrum disorders (ASD) are complex conditions whose pathogenesis may be attributed to gene–environment interactions. There are no definitive mechanisms explaining how environmental triggers can lead to ASD although the involvement of inflammation and immunity has been suggested. Inappropriate antigen trafficking through an impaired intestinal barrier, followed by passage of these antigens or immune-activated complexes through a permissive blood–brain barrier (BBB), can be part of the chain of events leading to these disorders. Our goal was to investigate whether an altered BBB and gut permeability is part of the pathophysiology of ASD.

Postmortem cerebral cortex and cerebellum tissues from ASD, schizophrenia (SCZ), and healthy subjects (HC) and duodenal biopsies from ASD and HC were analyzed for gene and protein expression profiles. Tight junctions and other key molecules associated with the neurovascular unit integrity and function and neuroinflammation were investigated.

Claudin (CLDN)-5 and -12 were increased in the ASD cortex and cerebellum. CLDN-3, tricellulin, and MMP-9 were higher in the ASD cortex. IL-8, tPA, and IBA-1 were downregulated in SCZ cortex; IL-1b was increased in the SCZ cerebellum. Differences between SCZ and ASD were observed for most of the genes analyzed in both brain areas. CLDN-5 protein was increased in ASD cortex and cerebellum, while CLDN-12 appeared reduced in both ASD and SCZ cortexes. In the intestine, 75% of the ASD samples analyzed had reduced

expression of barrier-forming TJ components (CLDN-1, OCLN, TRIC), whereas 66% had increased pore-forming CLDNs (CLDN-2, -10, -15) compared to controls.

Conclusions: In the ASD brain, there is an altered expression of genes associated with BBB integrity coupled with increased neuroinflammation and possibly impaired gut barrier integrity. While these findings seem to be specific for ASD, the possibility of more distinct SCZ subgroups should be explored with additional studies.

Molecular AutismBrain, Cognition and Behavior20167:49

Significant Association of Urinary Toxic Metals and Autism-Related Symptoms—A Nonlinear Statistical Analysis with Cross Validation

A number of previous studies examined a possible association of toxic metals and autism, and over half of those studies suggest that toxic metal levels are different in individuals with Autism Spectrum Disorders (ASD). Additionally, several studies found that those levels correlate with the severity of ASD.

In order to further investigate these points, this paper performs the most detailed statistical analysis to date of a data set in this field. First morning urine samples were collected from 67 children and adults with ASD and 50 neurotypical controls of similar age and gender. The samples were analyzed to determine the levels of 10 urinary toxic metals (UTM). Autism-related symptoms were assessed with eleven behavioral measures. Statistical analysis was used to distinguish participants on the ASD spectrum and neurotypical participants based upon the UTM data alone. The analysis also included examining the association of autism severity with toxic metal excretion data using linear and nonlinear analysis. "Leave-one-out" cross-validation was used to ensure statistical independence of results.

Results and Discussion: Average excretion levels of several toxic metals (lead, tin, thallium, antimony) were significantly higher in the ASD group. However, ASD classification using univariate statistics proved difficult due to large variability, but nonlinear multivariate statistical analysis significantly improved ASD classification with Type I/II errors of 15% and 18%, respectively. These results clearly indicate that the urinary toxic metal excretion profiles of participants in the ASD group were significantly different from those of the neurotypical participants. Similarly, nonlinear methods determined a significantly stronger association between the behavioral measures and toxic metal excretion. The association was strongest for the Aberrant Behavior Checklist (including subscales on Irritability, Stereotypy, Hyperactivity, and Inappropriate Speech), but significant associations were found for UTM with all eleven autism-related assessments with cross-validation R2 values ranging from 0.12–0.48.

journal.pone.0169526 January 9, 2017

What is the CDC explanation of their lack of action?

Per the CDC, "Thimerosal is a mercury-containing compound that prevents the growth of dangerous bacteria and fungus. It is used as a preservative for flu vaccines in multi-dose vials, to keep the vaccine free from contamination. Thimerosal is also used during the manufacturing process for some vaccines to prevent the growth of microbes.

In 1999, as a precautionary measure, the U.S. Public Health Service recommended removing thimerosal as a preservative from vaccines to reduce mercury exposure among infants as much as possible. Today, except for some flu vaccines in multi-dose vials, no recommended childhood vaccines contain thimerosal as a preservative."

The statement about using mercury in the manufacturing process is a bit misleading. Mercury and aluminum, as well as other substances, are used as adjuvants. "An adjuvant is an ingredient of a vaccine that helps create a stronger immune response in the patient's body...Aluminum salts, such as aluminum hydroxide, aluminum phosphate, and aluminum potassium sulfate have been used safely in vaccines for more than 70 years."

Aluminum is found in high concentration in brain plaques, indicating that it is (1) getting past the blood brain barrier, and (2) causing an inflammatory response which is mediated by SOD and other natural processes.

The CDC states, "To produce enough flu vaccine for the entire country, some of it must be put into multi-dose vials...Children can safely receive flu vaccine that contains thimerosal. Flu vaccine in single-dose vials

that does not contain thimerosal also is available."
Yes, you read that correctly, according to the CDC, to produce enough vaccine they must pack it in multidose vials. Apparently, there is a shortage of single dose vials, and it is not a problem just making the vaccine.

Mercury and aluminum containing vaccines are the norm, even today. When it comes to your children (or yourself, when urged to get your annual flu shot), do you feel lucky?

Evidence-based guidelines on the therapeutic use of transcranial direct current stimulation (tDCS)

Highlights:

•A group of European experts reviewed current evidence for therapeutic efficacy of tDCS.

•Level B evidence (probable efficacy) was found for fibromyalgia, depression and craving.

•The therapeutic relevance of tDCS needs to be further explored in these and other indications.

A group of European experts was commissioned by the European Chapter of the International Federation of Clinical Neurophysiology to gather knowledge about the state of the art of the therapeutic use of transcranial direct current stimulation (tDCS) from studies published up until September 2016, regarding pain, Parkinson's disease, other movement disorders, motor stroke, poststroke aphasia, multiple sclerosis, epilepsy, consciousness disorders, Alzheimer's disease, tinnitus, depression, schizophrenia, and craving/addiction. The evidence-based analysis included only studies based on repeated tDCS sessions with sham tDCS control procedure; 25 patients or more having received active treatment was required for Class I, while a lower number of 10–24 patients was accepted for Class II studies. Current evidence does not allow making any recommendation of Level A (definite efficacy) for any indication. Level B recommendation (probable efficacy) is proposed for: (i) anodal tDCS of the left primary motor cortex (M1) (with right orbitofrontal cathode) in fibromyalgia; (ii) anodal tDCS of the left dorsolateral prefrontal cortex (DLPFC) (with right orbitofrontal cathode) in major depressive episode without drug resistance; (iii) anodal tDCS of the right DLPFC (with left DLPFC cathode) in addiction/craving. Level C recommendation (possible efficacy) is proposed for anodal tDCS of the left M1 (or contralateral to pain side, with right orbitofrontal cathode) in chronic lower limb neuropathic pain secondary to spinal cord lesion. Conversely, Level B recommendation (probable inefficacy) is conferred on the absence of clinical effects of: (i) anodal tDCS of the left temporal cortex (with right orbitofrontal cathode) in tinnitus; (ii) anodal tDCS of the left DLPFC (with right orbitofrontal cathode) in drug-resistant major depressive episode. It remains to be clarified whether the probable or possible therapeutic effects of tDCS are clinically meaningful and how to optimally perform tDCS in a therapeutic setting. In addition, the easy management and low cost of tDCS devices allow at home use by the patient, but this might raise ethical and legal concerns with regard to potential misuse or overuse. We must be careful to avoid inappropriate applications of this technique by ensuring rigorous training of the professionals and education of the patients.

Clinical Neurophysiology January 2017Volume 128, Issue 1, Pages 56–92

Use of benzodiazepines and related drugs is associated with a risk of stroke among persons with Alzheimer's disease.

The aim of our study was to investigate the risk of any, ischemic, and hemorrhagic stroke associated with incident benzodiazepine and related drug (BZDR) use among community-dwelling individuals with Alzheimer's disease (AD). Data from the MEDALZ cohort including all community-dwelling persons newly diagnosed with AD between 2005 and 2011 in Finland were utilized. Incident BZDR users were identified with a 1-year washout period for previous use. Persons with a previous stroke were excluded, resulting in a final study sample of 45?050 individuals. Incident any, ischemic, and hemorrhagic strokes were identified from the Hospital Discharge and Causes of Death registers. The risk of stroke between time on BZDRs was compared with nonuse time with Cox proportional hazard models. During the follow-up, 21.9% (N=9879) of persons started BZDR use. Compared with nonuse, BZDR use was associated with an increased risk of any stroke [adjusted hazard ratio (aHR): 1.21; 95% confidence interval (CI): 1.04-1.40] and ischemic stroke (aHR: 1.21; 95% CI: 1.02-1.44), but the association between BZDR use and hemorrhagic stroke did not reach significance (aHR: 1.26; 95% CI: 0.91-1.74). Z-drug use was associated with a similar risk as benzodiazepine use.

Conclusions: Benzodiazepine use was associated with an increased risk of stroke among older individuals with AD.

Int Clin Psychopharmacol. 2017 Jan 7

Association Between Antipsychotic Agents and Risk of Acute Respiratory Failure in Patients with Chronic Obstructive Pulmonary Disease

Acute respiratory failure (ARF) is a life-threatening event that has been linked in case reports to antipsychotic use, but this association lacks population-based evidence. Particular attention should be focused on patients with chronic obstructive pulmonary disease (COPD) regarding this drug safety concern because these patients are prone to ARF and are commonly treated with antipsychotics. To determine whether the use of antipsychotics is associated with an increased risk of ARF in patients with COPD, a population-based case-crossover study was conducted of all patients with COPD, who were newly diagnosed with ARF in hospital or emergency care settings necessitating intubation or mechanical ventilation from January 1, 2000, to December 31, 2011. Patients with prior ARF, lung cancer, and cardiogenic, traumatic, or septic ARF were excluded to analyze idiopathic ARF. The pilot study was conducted from November 1 to December 31, 2013, and full data analysis was performed from October 15, 2015, to November 8, 2016. The use of antipsychotics was self-compared during days 1 to 14 (the risk period according to previous case reports) and days 75 to 88 (control period) preceding the ARF event or index date. The antipsychotic class, route of administration, and dose were also examined.

There were 5032 patients with ARF (mean [SD] age, 74.4 [9.9] years; 3533 males [70.2%]) among the 61620 patients with COPD. Five hundred ninety patients with ARF (11.7%) filled at least 1 antipsychotic prescription during the case period compared with 443 (8.8%) during the control period, corresponding to a 1.66-fold (95% CI, 1.34-2.05; P<.001) adjusted increased risk of ARF regardless of antipsychotic class and administration route. A dose-dependent risk of ARF associated with antipsychotics was identified (test for trend, adjusted odds ratio, 1.35; 95% CI, 1.19-1.52; P<.001), which increased from a 1.52-fold risk for a low daily dose (95% CI, 1.20-1.92; P<.001) to a 3.74-fold risk for a high dose (95% CI, 1.68-8.36; P=.001). The increased risk persisted under a case-time-control analysis (adjusted odds ratio, 1.62; 95% CI, 1.16-2.27; P=.005) and nested case-control study (adjusted odds ratio, 2.16; 95% CI, 1.91-2.15; P<.001).

Conclusions and Relevance: Antipsychotic use is associated with an acute and dose-dependent increased risk of ARF in patients with COPD. Clinicians should exercise caution when prescribing antipsychotics to patients with COPD and avoid high doses if possible.

JAMA Psychiatry. Published online January 4, 2017

Ed: The study included only those diagnosed with COPD (and who never before had an ARF episode). It COULD be that there is something unique about this group that separates them from the general population. The author stated, "Antipsychotic use in COPD patients needs to be justified, given we noticed a high proportion of off-label use in our population. Per our dose analysis, high daily dose of antipsychotics with more than 1 DDD should be avoided, and the risk should not be overlooked even in patients at a dose as low as a quarter of 1 DDD." "This paper should really

make us think twice about that in patients with lung disease," Dr Gordon-Elliott said.

"Antipsychotics Frequently Part of Kids' ADHD Treatment"

ADHD Treatment in Primary Care

The aim of this study is to determine the prevalence and characteristics of youth with attention-deficit hyperactivity disorder (ADHD) in Ontario, Canada, and to determine the predictors of psychotropic medication prescriptions in youth with ADHD. This is a cross-sectional retrospective chart abstraction of more than 250 000 medical records from youth aged 1 to 24 years in a large geographical region in Ontario, Canada, linked to population-based health administrative data. A total of 10 000 charts were randomly selected and manually reviewed using predetermined criteria for ADHD and comorbidities. Prevalence, comorbidities, demographic indicators, and health service utilization characteristics were calculated. Predictors of treatment characteristics were determined using logistic regression modelling.

The prevalence of ADHD was 5.4% (7.9% males, 2.7% females). Youth with ADHD had significant psychiatric comorbidities. The majority (70.0%) of ADHD patients received prescriptions for stimulant or nonstimulant ADHD medication. Antipsychotic prescriptions were provided to 11.9% of ADHD patients versus 0.9% of patients without ADHD. Antidepressant prescriptions were provided to 19.8% versus 5.4% of patients with and without ADHD, respectively. Predictors of antidepressant prescriptions were increasing age (odds ratio [OR], 1.14; 95% confidence interval [CI], 1.07 to 1.21), psychiatric consultation (OR, 2.04; 95% CI, 1.16 to 3.58), and diagnoses of both anxiety and depression (OR, 18.4; 95% CI, 8.03 to 42.1), whereas the only predictor of antipsychotic prescriptions was psychiatric consultation (OR, 3.85; 95% CI, 2.11 to 7.02).

Conclusions: Youth with ADHD have more psychiatric comorbidities than youth without ADHD. The majority of youth with ADHD received stimulant medications, and a significant number received additional psychotropic medications, with psychiatric consultation predicting medication use.

Can J Psychiatry. Published online January 18, 2017.

Ed: This conclusion is not supported. It only supports that youth with ADHD are given many chemicals including "anti"depressants, anxiolytics and antipsychotics. Many studies demonstrate that this does not mean comorbidities exist, only that misprescribing it a fact for current, uninformed medical care.

Impaired Glucose Homeostasis in First-Episode Schizophrenia a Systematic Review and Meta-analysis

In this meta-analysis of 14 case-control studies comprising 1345 participants, individuals with first-episode schizophrenia had elevated fasting plasma glucose levels, elevated plasma glucose levels after an oral glucose tolerance test, and elevated fasting plasma insulin levels, as well as greater insulin resistance compared with healthy individuals serving as controls.

Conclusions: Glucose homeostasis is altered from illness onset in schizophrenia, indicating that patients are at increased risk for type 2 diabetes as a result; this finding has implications for the monitoring and treatment of patients with schizophrenia.

JAMA Psychiatry. Published online January 11, 2017

Ed: It is hard to deny that inflammation is clearly implicated in both schizophrenia and diabetes, and in depression, anxiety, dementia and many (possibly all?) disorders. This does not explain away the diabetes causing effects of antipsychotics. Correlation with antipsychotic naive subjects was (g=0.20; 95% CI, 0.02 to 0.38; p=.03). Other studies have found a typical correlation for those on antispychotics to be 4.89, p<.001.

An early April 1 offering?

Psychiatric drugs are not inferior to other drugs, review concludes

The British Medical Journal recently published an article defending psychotropics as effective, overall, as other drugs, based on a review published in the British Journal of psychiatry. Excerpts:

"The study included 94 meta-analyses of 48 drugs in 20 medical diseases and 33 meta-analyses of 16 drugs in eight psychiatric disorders. The researchers chose reviews of classes of drugs rather than single drugs and excluded meta-analyses of subgroups such as older people. They also chose the most recent reviews. For

each meta-analysis, the researchers looked at the absolute risk difference between the drug and placebo and the relative risk reduction and calculated an overall effect size. An effect size of 0.2 is considered significant but low and an effect size of 0.8 or above is considered high.

Some general medicine drugs had very high effect sizes—for example, 2.27 for interferon to treat hepatitis C and 1.39 for proton pump inhibitors to treat reflux oesophagitis. But some commonly used general medicine drugs had much smaller effects. For example, for the secondary prevention of cardiovascular events aspirin had an effect size of 0.12 and statins an effect size of 0.15.

Psychiatric drugs were overall found to be in the same range as the general medicine drugs. Antidepressants used as maintenance treatment to prevent patients having a relapse of major depressive disorder had an effect size of 0.64 and antipsychotics to prevent relapse in schizophrenia had an effect size of 0.92. Treatment with methylphenidate for attention deficit hyperactivity disorder had an effect size of 0.78."

BMJ 2012;344:e856

Ed: Lead study author Stefan Leucht said: "There are reasons why people should be critical about psychiatric drug treatment, such as a lack of diagnostic tests, commercial conflict of interest, unclear mechanism of drug action and side-effects. But our study shows that the psychiatric drugs were not generally inferior to those used in other medical specialties, and the effectiveness of psychiatric drugs is supported by randomised controlled trials."

BMJ did note weaknesses in the review: "[This] is not a systematic review. The researchers selected the diseases and the meta-analyses they included. The study also did not address side effects, which are a serious problem with many psychotropic drugs. Any improvement by a drug over placebo 'has to be viewed in the context of the disease's seriousness, suffering induced, natural course, duration, outcomes, adverse events and societal values.'"

The authors cherry-picked and made comparisons in a biased manner. If interferon has an effect size of 2.27, what is the effect size of such common drugs as antihypertensives and antibiotics? Obviously much higher. To claim that a disorder TREATMENT is acceptable with a "high effect size" being 0.8 or greater is nearly pathological. Yes, aspirin PREVENTS cardiovascular disease with an effect size of 0.2. No one claims it TREATS cardiovascular disease. What is the effect size of aspirin to TREAT headache? Any analysis that waves away placebo effect is immaterial would seem to violate journalistic integrity standards.

If most drugs indeed do have effect sizes of 0.64 disregarding placebo effect, as that claimed in the article for "anti"depressants, we all would be wise to shun allopathic medicine and visit our local witch doctor when we have an illness.

Does Mental Health Status Influence Susceptibility to the Physiologic Effects of Air Pollution? A Population Based Study of Canadian Children

Both air pollution exposure and the presence of mental illness are associated with an increased risk of physical illness. To determine whether or not children with less favourable mental health are more susceptible to pulmonary and cardiovascular effects of ambient air pollution, compared to those who are mentally healthy, we carried out a cross-sectional study of 1,883 children between the ages of 6 and 17 years of age who participated in the Canadian Health Measures population survey between 2007 and 2009. Subjects were assigned the air pollution values obtained from the National Air Pollution monitor closest to their neighborhood. Lung function, heart rate and blood pressure were stratified by indicators of mental health. The latter were ascertained by questions about feelings of happiness, a diagnosed mood disorder, and the emotional symptom subscale of the Strengths and Difficulties Questionnaire.

Among those who reported a mood disorder, an interquartile increase in ozone was associated with increases in systolic and diastolic pressures of 3.8 mmHg and 3.0mmHg respectively, and decreases in FVC of 7.6%. No significant changes in these variables were observed in those who did not report a mood disorder. Among those with unfavourable emotional symptoms, ozone was associated with a 6.4% increase in heart rate, a 4.1% increase in systolic blood pressure, and a 6.0% decrease in FEVl. No significant effect was seen in these variables among those with no emotional symptoms.

Conclusions: In the Canadian population, children who report mood disorders or unfavourable emotional symptoms appear to be more vulnerable to the adverse physiologic effects of air pollution.

PLOSone December 28, 2016

Ed: This study seems to ignore the alternate interpretation, that the air pollution caused adverse effects on lung function, heart rate, blood pressure and mood symptoms in sensitive participants!

Antidepressant use and risk of hip fractures among community-dwelling persons with and without Alzheimer's disease

To study whether antidepressant use is associated with an increased risk of hip fracture among community-dwelling persons with and without Alzheimer's disease (AD), and to compare the risk according to duration of use and between antidepressant groups, a retrospective cohort study, including 50,491 persons with AD (mean age 80) and 100,982 comparison persons without AD from Finnish register-based MEDALZ cohort was conducted. Antidepressant use was compared with nonuse with Cox proportional hazard models. Incident users were identified with a one year washout period from Prescription register data. Main outcome was hospitalization due to hip fracture.

During antidepressant use, the age-adjusted rate of hip fractures per 100 person-years was 3.01 (95% CI 2.75–3.34) among persons with and 2.28 (1.94–2.61) among persons without AD. Antidepressant use was associated with an increased risk of hip fracture among persons with and without AD (adjusted HR 1.61, 95% CI 1.45–1.80 and 2.71, 2.35–3.14, respectively) compared with nonuse. The risk was most prominent in the beginning of use and was elevated even up to 4 years. The risk was increased with all of the most frequently used antidepressants.

Conclusions: Antidepressant use is associated with an increased risk of hip fracture among older persons.

International Journal of Geriatric Psychiatry, 2017;

Ed: In addition to these findings, "anti"depressants have been shown to increase depression in at least 8% of recipients, and to be no more effective than placebos. Isn't it time these harmful chemicals be banned, and prescribers sanctioned?

Antidepressant use during pregnancy and the risk of major congenital malformations in a cohort of depressed pregnant women: an updated analysis of the Quebec Pregnancy Cohort

Antidepressant use during gestation has been associated with risk of major congenital malformations but estimates can lack statistical power or be confounded by maternal depression. Data were obtained from the Quebec Pregnancy Cohort (QPC). All pregnancies with a diagnosis of depression or anxiety, or exposed to antidepressants in the 12 months before pregnancy, and ending with a live-born singleton were included. Antidepressant classes (selective serotonin reuptake inhibitors (SSRI), serotonin–norepinephrine reuptake inhibitors (SNRI), tricyclic antidepressants (TCA) and other antidepressants) and types were individually compared with non-exposure during the first trimester (depressed untreated). Major congenital malformations overall and organ-specific malformations in the first year of life were identified.

18,487 pregnant women were included. When looking at the specific types of antidepressant used during the first trimester, only citalopram was increasing the risk of major congenital malformations (adjusted OR, (aOR) 1.36, although there was a trend towards increased risk for the most frequently used antidepressants. Antidepressants with serotonin reuptake inhibition effect (SSRI, SNRI, amitriptyline (the most used TCA)) increased the risk of certain organ-specific defects: paroxetine increased the risk of cardiac defects (aOR 1.45), and ventricular/atrial septal defects (aOR 1.39); citalopram increased the risk of musculoskeletal defects (aOR 1.92), and craniosynostosis (aOR 3.95); TCA was associated with eye, ear, face and neck defects (aOR 2.45), and digestive defects (aOR 2.55); and venlafaxine was associated with respiratory defects (aOR 2.17).

Conclusions: Antidepressants with effects on serotonin reuptake during embryogenesis increased the risk of some organ-specific malformations in a cohort of pregnant women with depression.

BMJ Open Volume 7, Issue 1

Amphetamine Orally Disintegrating Tablets: Another Option for the Treatment of Attention Deficit Hyperactivity Disorder

The options for treatment of attention deficit hyperactivity disorder (ADHD) continue to expand. With the approval of Adzenys XR-ODTTM on January 26, 2016, Neos Therapeutics introduced the first extended-release orally disintegrating amphetamine tablet.[1] The manufacturer also has an extended-release methylphenidate ODT in phase 3 clinical trials. The ODT form offers a convenient means of providing 10–12 hours of symptom control for patients unable to swallow tablets or capsules

CNS stimulants, including amphetamine products, should not be used in patients with cardiac disease or in patients with a family history of arrhythmias or sudden cardiac death. Although rare, the risk for sudden cardiac death is higher in pediatric patients with structural cardiac anomalies. Amphetamine use may cause an increase in heart rate or blood pressure. In clinical trials, the mean increases observed with amphetamine administration in adults have been 3–6 bpm and 2–4 mm Hg, respectively. Stimulant use is also associated with peripheral vasculopathy and suppression of growth. The use of CNS stimulants may induce or exacerbate symptoms of pre-existing psychiatric illness or induce a manic episode in patients with bipolar disease.

All CNS stimulants have a high potential for abuse. The risk for abuse should be evaluated prior to initiation of amphetamine products and periodically during treatment. The ODT formulation may be more easily abused than other stimulant dosage forms; patients and families should understand the need for appropriate safeguards surrounding storage and handling of the tablets. Unused tablets should be returned to an appropriate drug take-back program, or if unavailable, mixed with an undesirable non-toxic liquid and placed in a sealed plastic bag prior to being discarded. the most commonly reported adverse effects in trials of Adderall XR® were loss of appetite, insomnia, abdominal pain, emotional lability, nausea and vomiting, nervousness, and fever. In patients 13 to 17 years of age, the most common reactions were loss of appetite, abdominal pain, weight loss, insomnia, and nervousness. Acidifying agents such as ascorbic acid, guanethidine, reserpine, or glutamic acid may decrease blood amphetamine levels and reduce symptom control. Sodium bicarbonate, acetazolamide, or other alkalinizing agents may increase blood amphetamine levels. Administration of amphetamines with proton pump inhibitors may produce a more rapid peak amphetamine concentration and an altered clinical response. The retail cost for a 30-day supply ranges from approximately $270 to $300,

Medscape from Pediatr Pharm. 2016;22(10)

Ed: Add to this, the expected increase in rate of Parkinson's disease. Long term, low dose amphetamine use has been shown in multiple studies to increase the rate of Parkinson's in later life by 60%. (American Academy of Neurology's 63rd Annual Meeting in Honolulu April 9 to April 16, 2011.)

Modafinil Improves Episodic Memory and Working Memory Cognition in Patients with Remitted Depression: A Double-Blind, Randomized, Placebo-Controlled Study

Modafinil has been shown to have beneficial effects on cognitive function and therefore has the potential to improve cognition in depression. The objective of this double-blind, placebo-controlled study was to investigate the effects of modafinil on cognitive functions in patients with remitted depression.

In total, 60 patients with remitted depression participated in the study. Cognitive functions were evaluated with tests of working memory, planning, attention, and episodic memory from the Cambridge Neuropsychological Test Automated Battery at the baseline session and after treatment. A double-blind, randomized, placebo-controlled, parallel groups design was used to assess the effects of single-dose (200 mg) modafinil (n = 30) or placebo (n = 30) on cognition and fatigue. The main outcome measures were neurocognitive test scores from the Cambridge Neuropsychological Test Automated Battery. Visual analogue scales for subjective feelings and fatigue were used as secondary measures.

Results: The modafinil group had significantly better performance on tests of episodic memory ($p = .01$, $p2 = .10$) and working memory ($p = .04$, $p2 = .06$). Modafinil did not improve planning or sustained attention.

Conclusions: This study suggested that modafinil (200

mg) could improve episodic memory and working memory performance in patients with remitted depression. Modafinil may have potential as a therapeutic agent to help remitted depressed patients with persistent cognitive difficulties.

Biol Psych Cogn Neurosci Neuroimaging 2017.

Ed: Modafinil has a positive effect on cognition and cognitive abilities while also improving concentration and focus. It is hypothesized that modafinil increases adrenaline and dopamine neurotransmission enough for these cognitive advantages, but not enough to create euphoria and addiction. The long-term safety and effectiveness of modafinil have not been determined. Over one-third of recipients experience reportable headaches, and up to 1 in 10 experience nausea, nervousness, diarrhea, insomnia, dizziness and GI problems. This study was based on 30 patients taking this chemical. I suspect low dose cocaine would have similar results, and similar adverse effects.

Alternative Approaches

Depression further boosts stroke risk in A-fib

Depression increases the risk of stroke in patients with atrial fibrillation, Bruno B. Lima, MD, reported at the American Heart Association scientific sessions.

He reported on 5,976 consecutive patients diagnosed with paroxysmal or persistent AF and placed on rhythm control medication at the University of Pittsburgh Medical Center and its affiliated clinics. Physician-diagnosed depression was present in 11.4% of the patients' charts.

During a median follow-up of 39 months, 200 strokes occurred, including 35 in patients with depression. The incidence was 7.5% in AF patients with depression and 4.7% in those without diagnosed depression.

The depressed AF patients had more comorbid conditions, including significantly higher rates of hypertension, diabetes, chronic kidney disease, chronic obstructive pulmonary disease, obesity, cancer, and heart failure. They were also more likely to be smokers. But in a multivariate analysis controlling for comorbidities, age, gender, previous stroke, and use of anticoagulant therapy, the depressed AF patients remained at 45% greater risk of stroke compared with AF patients without diagnosed depression.

Clinical psychiatry News Jan. 5 2017.

Ed: This correlation between A-fib and symptoms of depression is likely as reported, but this does not lead one to conclude "depression" as a separate, independent disease, causes more deaths. A more likely scenario is that cardiovascular disease has fatigue, sadness and other depression-like mental processes as symptoms, and that severe CVD symptoms such as A-fib cause a person to be depressed about their condition. They also might be receiving one of the over 1000 prescription drugs that cause anxiety and depression symptoms. As Psychologists, we must be alert to the possibility that our patient's "depression" may have physical causes.

The current fascination of "comorbidities," and "depression" causing so much disease seems to be related to the advertising budgets of "anti"depressant manufacturers.

Antibiotic-associated encephalopathy.

Delirium is a common and costly complication of hospitalization. Although medications are a known cause of delirium, antibiotics are an under recognized class of medications associated with delirium. In this article, we comprehensively review the clinical, radiologic, and electrophysiologic features of antibiotic-associated encephalopathy (AAE). AAE can be divided into 3 unique clinical phenotypes: encephalopathy commonly accompanied by seizures or myoclonus arising within days after antibiotic administration (caused by cephalosporins and penicillin); encephalopathy characterized by psychosis arising within days of antibiotic administration (caused by quinolones, macrolides, and procaine penicillin); and encephalopathy accompanied by cerebellar signs and MRI abnormalities emerging weeks after initiation of antibiotics (caused by metronidazole). We correlate these 3 clinical phenotypes with underlying pathophysiologic mechanisms of antibiotic neurotoxicity. Familiarity with these types of antibiotic toxicity can improve timely diagnosis of AAE and prompt antibiotic discontinuation, reducing the time patients spend in the delirious state.

Neurology. 2016; 86(10):963-71 (ISSN: 1526-632X)

Medscape: Antimicrobials, a drug class that is an often-overlooked etiology, have been associated with a wide range of neurologic symptoms, including sedation, sleep disturbance, confusion, delirium, seizures, mood changes, psychosis, and hallucinations. The type and frequency of mental status changes vary by drug and drug class and are increased with higher doses, concurrent central nervous system (CNS) disorders, older age, and renal dysfunction. Fluoroquinolones, cephalosporins, and macrolides appear to be the most common causative agents, with the incidence varying from a few isolated case reports to 15% of patients in the intensive care unit receiving cefepime and over 50% of elderly patients receiving high-dose clarithromycin.

Ed: 50%!

Depression as hard on the heart as obesity and cholesterol

Science News (January 13, 2017) released a summary of a study "Room for depressed and exhausted mood as a risk predictor for all-cause and cardiovascular mortality beyond the contribution of the classical somatic risk factors in men" published in Atherosclerosis (see reference below). Excerpts: "Depression poses a risk for cardiovascular diseases in men that is just as great as that posed by high cholesterol levels and obesity…" the researchers "analyzed data from 3,428 male patients between the ages of 45 and 74 years and observed their development over a period of ten years… Viewed across the population, depression accounts for roughly 15 percent of the cardiovascular deaths…In high risk patients, the diagnostic investigation of comorbid depression should be standard."

Atherosclerosis, 2016

Ed: This "study" does not establish "depression accounts for roughly 15 percent of the cardiovascular deaths" as stated in SN. The study used the DEEX scale, the adjusted depressed mood and exhaustion self-report scale with no follow up of mental health diagnosis or treatment. Of the scale, "Construct validity was confirmed by significant associations (all p < 0.001) with sleeping complaints, social isolation, and unhappiness…The scale comprises eight items describing motivational depletion, decreased vitality, irritability, and an anxious mood with sufficient internal and external reliability, concurrent and construct validity."

Depression, if occurring first, certainly could be a factor in reduced exercise, poor weight management and poor dietary choices which could have as a downstream consequence of cardiovascular disease, just as anxiety could cause an elevation of cortisol and these same symptoms. BUT, cardiovascular disease has fatigue as one of its primary symptoms, and a person with heart disease almost certainly would score high on the DEEX. Feeling exhausted and having poor sleep quality would make most people sad and unhappy. The survey did not try to control for these factors. This survey could lead more physicians to refer out for mental health treatment but more importantly it spotlights the need for psychologists to insist that our high-risk patients have a work-up by a competent physician/cardiologist as part of ethical treatment.

Initial severity of depression and efficacy of cognitive–behavioural therapy: individual-participant data meta-analysis of pill-placebo-controlled trials

The influence of baseline severity has been examined for antidepressant medications but has not been studied properly for cognitive–behavioural therapy (CBT) in comparison with pill placebo. To synthesise evidence regarding the influence of initial severity on efficacy of CBT from all randomised controlled trials (RCTs) in which CBT, in face-to-face individual or group format, was compared with pill-placebo control in adults with major depression, a systematic review and an individual-participant data meta-analysis using mixed models that included trial effects as random effects was conducted.

We identified five RCTs, and we were given access to individual-level data (n = 509) for all five. The analyses revealed that the difference in changes in Hamilton Rating Scale for Depression between CBT and pill placebo was not influenced by baseline severity (interaction P = 0.43). Removing the non-significant interaction term from the model, the difference between CBT and pill placebo was a standardised mean difference of -0.22 (95% CI -0.42 to -0.02, P = 0.03, I2 = 0%).

Conclusions: Patients suffering from major depression can expect as much benefit from CBT across the wide range of baseline severity. This finding can help inform individualised treatment decisions by patients and their clinicians. Br J Psychiatry2017

Non-pharmacological Treatment of Depression

The comparative effectiveness of non-pharmacological treatments of depression remains unclear. We conducted an overview of systematic reviews to identify randomised controlled trials (RCTs) that compared the efficacy and adverse effects of non-pharmacological treatments of depression. We searched multiple electronic databases through February 2016 without language restrictions. Pairs of reviewers determined eligibility, extracted data and assessed risk of bias. Meta-analyses were conducted when appropriate.

We included 367 RCTs enrolling ~20 000 patients treated with 11 treatments leading to 17 unique head-to-head comparisons. Cognitive behavioural therapy, naturopathic therapy, biological interventions and physical activity interventions reduced depression severity as measured using standardised scales. However, the relative efficacy among these non-pharmacological interventions was lacking. The effect of these interventions on clinical response and remission was unclear. Adverse events were lower than antidepressants.

Conclusions: Non-pharmacological therapies of depression reduce depression symptoms and should be considered along with antidepressant therapy for the treatment of mild-to-severe depression. A shared decision-making approach is needed to choose between non-pharmacological therapies based on values, preferences, clinical and social context. Each of CBT (61 RCTs), computerised cognitive behavioural therapy (14 RCTs), naturopathic therapy (43 RCTs), biological interventions (12 RCTs) and physical activity interventions (61 RCTs) reduced depression severity compared with a control group (waitlist, usual care or placebo).

Evid Based Med. 2016;21(6):214-221.

Ed: Both this study and they next support the efficacy of psychotherapy, although in my opinion understating the benefits of psychotherapy:

1. "Do nothing" and a "placebo" group participants had to be diagnosed to be in the studies. Sitting down with a lab-coated "expert" who explains how a chemical might cure depression (required as part of any "blinded" study), discussing how you feel and the timeline over which you felt that way, being routinely talked with as the studies progressed (necessary for blinding if taking chemicals or not), and being talked with and re-evaluated at the end of the study sounds suspiciously like talk therapy.

2. The study found that the chemicals had significant adverse effects, and that non-chemical therapies did not, with no benefit to the chemicals. This is not a tough cost/benefit analysis, yet chemicals continue to be promoted as equivalent.

3. As with many "studies", the term "usual care" is given as a control group, yet this "usual care" is not defined and certainly involves talk therapy (see #1).

Because of these flaws, the study groups effectively become a. Limited psychotherapy alone (called usual care), b. limited psychotherapy plus a chemical (incorrectly called chemical only), c. limited psychotherapy plus additional psychotherapy (called psychotherapy only, but compared to a fictitious placebo group) and d. limited psychotherapy plus additional psychotherapy plus a chemical. If you have figured out a way to diagnosis and monitor depression without talking to the patient, please let me know!

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Conclusions: Patients suffering from major depression

can expect as much benefit from CBT across the wide range of baseline severity. This finding can help inform individualised treatment decisions by patients and their clinicians.

Br J Psychiatry2017

Living near major roads and the incidence of dementia, Parkinson's disease, and multiple sclerosis: a population-based cohort study

Key findings:

Using data held at ICES, the researchers examined records of more than 6.5 million Ontario residents, aged 20-85, and mapped them according to residential postal codes five years before the study started.

Between 2001 and 2012, 243,611 cases of dementia, 31,577 cases of Parkinson's disease, and 9,247 cases of multiple sclerosis were identified in Ontario.

People who lived within 50 metres of high-traffic roads had a seven per cent higher likelihood of dementia than those who lived more 300 meters away from busy roads.

The increase in the risk of developing dementia went down to four per cent if people lived 50-100 metres from major traffic, and to two per cent if they lived within 101-200 metres. At over 200 metres, there was no elevated risk of dementia.

There was no correlation between major traffic proximity and Parkinson's disease or multiple sclerosis.

The Lancet 2017

Ed: Numerous studies have shown that heavy metals, diesel soot and other pollutants settle out near roadways, and that these pollutants cause inflammation (possibly the primary cause of dementia). This study is not a surprise. I am surprised that the authors controlled for income based on zip codes. Home prices are substantially lower next to busy roadways and its occupants likely reflect this by having less education, lower literacy rates and are more likely to have been in low-skilled jobs (with pollutant exposures typically much higher), all demonstrated factors in increased dementia risk.

I was involved in health studies which determined that elevations in blood pressure (likely as a response to noise), and c-reactive protein (CRP, an indicator of inflammation) inversely correlated with distance from highways, both factors also linked to increased dementia. Lancet published with these flaws.

Iron Status in Attention-Deficit/Hyperactivity Disorder: A Systematic Review and Meta-Analysis

Attention-deficit/hyperactivity disorder (ADHD) is one of the most common psychiatric disorders in children. However, the pathogenesis of ADHD remains unclear. Iron, an important trace element, is implicated in brain function and dopaminergic activity. Recent studies have investigated the association between iron deficiency and ADHD, but the results are inconsistent.

A systemic search of MEDLINE, EMBASE, Web of Science and Cochrane Library databases was supplemented by manual searches of references of key retrieved articles. Study quality was evaluated using the Newcastle-Ottawa Scale. The standardised mean difference (SMD) and 95% confidence intervals (CIs) were calculated using a random-effects model. H2 and I2 were used to evaluate the heterogeneity, and sensitivity, subgroup and meta-regression analyses were conducted to explore the reason of heterogeneity.

The search yielded 11 studies published before July 25, 2016. Of these, 10 studies, comprising 2191 participants and 1196 ADHD cases, reported serum ferritin levels, and six studies, comprising 617 participants and 369 ADHD cases, reported serum iron levels. Serum ferritin levels were lower in ADHD cases (SMD = -0.40, 95% CI = -0.66 to -0.14). However, we found no correlation between serum iron levels and ADHD (SMD = -0.026, 95% CI = -0.29 to 0.24). Meta-regression analysis indicated that publication year, age, gender, sample size, and Hb levels did not significantly influence the pooled estimates of serum ferritin.

Conclusions: Lower serum ferritin rather than serum iron is associated with ADHD in children.

PLOSone January 3, 2017

Ed: Although I take exception to the labeling of ADHD as a psychiatric disorder, this study does explain the cause of zinc deficiency in depression, ADHD, schizophrenia, bipolar disorder, dementias and anxiety disorder. Zinc is carried by ferritin, just as is iron. Significant research has identified the presence of excess copper relative to zinc in neurological disorders,

with copper being strongly neurotoxic. Zinc is a necessary component to superoxide dysmutase, a scavenger molecule in the brain that mops up heavy metals and other neurotoxins.

Maysin and Its Flavonoid Derivative from Centipedegrass Attenuates Amyloid Plaques by Inducting Humoral Immune Response with Th2 Skewed Cytokine Response in the Tg (APPswe, PS1dE9) Alzheimer's Mouse Model

In a previous study, we found that an ethyl acetate extract of Centipedegrass (CG) (i.e., EA-CG) contained 4 types of Maysin derivatives, including Luteolin, Isoorientin, Rhamnosylisoorientin, and Derhamnosylmaysin, and showed protective effects against Amyloid beta (Aß) by inhibiting oligomeric Aß in cellular and in vitro models. Here, we examined the preventative effects of EA-CG treatment on the Aß burden in the Tg (Mo/Hu APPswe PS1dE9) AD mouse model. We have investigated the EA-CG efficacy as novel anti-AD likely preventing amyloid plaques using immunofluorescence staining to visually analyze Aß40/42 and fibril formation with Thioflavin-S or 6E10 which are the profile of immunoreactivity against epitope Aß1–16 or neuritic plaque, the quantitation of humoral immune response against Aß, and the inflammatory cytokine responses (Th1 and Th2) using ELISA and QRT-PCR.

EA-CG induced an immunoglobulin IgG and IgM response against the EA-CG treatment in the Tg mice. Furthermore, EA-CG significantly ameliorated the level of soluble Aß42 and Aß40. Similarly, we observed that the fibril formation was also decreased by EA-CG treatment in the hippocampus and cortex after quantitative analysis with Thioflavin-S staining in the Tg brain tissues.

Conclusions: Our findings suggested that Maysin and its derivative flavonoid compounds in the EA-CG fraction might be beneficial therapeutic treatments or alternative preventative measures to adjuvant for boosting humoral and cellular include immune response and anti-inflammation which may lead to amyloid plaque accumulation in Alzheimer's patients' brains.

journal.pone.0169509 January 10, 2017

Ed: Drug research continues to be primarily based on synthesizing natural substances that have been shown to be effective, despite the drug industry's constant denial of natural treatments. Centipede grass originates from China and South America and is reported to contain several C-glycosyl flavones and phenolic constituents, including maysin and luteolin derivatives. It is used as a warm weather lawn grass. The constituents are very difficult to synthesize, and chemical companies would have difficulty patenting the easily made extracts, so don't expect to see this as a drug soon...

Extracts from two ubiquitous Mediterranean plants ameliorate cellular and animal models of neurodegenerative proteinopathies

Chemicals extracted from the prickly pear and brown seaweed, two ubiquitous Mediterranean plants, have been elevated to possible drug candidates to combat neurodegeneration in Alzheimer's and Parkinson's.

Highlights

- Extract of Padina pavonica (EPP) and Opuntia ficus-indica (EOFI) investigated.
- EOFI or EPP improved viability of a yeast model of Alzheimer's disease (AD).
- EOFI or EPP treatment ameliorated lifespan and mobility defects in AD flies.
- Survival of Parkinson's disease but not wild-type flies is enhanced by EOFI or EPP.
- Either extract mitigates toxicity of Amyloid-ß and a-synuclein aggregates.

We investigated whether extracts derived from two ubiquitous Mediterranean plants namely, the prickly pear Opuntia ficus-indica (EOFI) and the brown alga Padina pavonica (EPP) alleviate neurodegenerative phenotypes in yeast (Saccharomyces cerevisiae) and fly (Drosophila melanogaster) models of AD and PD. Pretreatment with EPP or EOFI in the culture medium significantly improved the viability of yeast expressing the Arctic Aß42 (E22G) mutant. Supplementing food with EOFI or EPP dramatically ameliorated lifespan and behavioural signs of flies with brain-specific expression of wild-type Aß42 (model of late-onset AD) or the Arctic Aß42 variant (model of early-onset AD). Additionally, we show that either extract prolonged the survival of a PD fly model based on transgenic expression of the human a-syn A53T mutant. Taken together, our findings suggest that the plant-derived extracts interfere with shared mechanisms of neurodegeneration in AD and PD. This notion is strengthened

by evidence demonstrating that EOFI and to a greater extent EPP, while strongly inhibiting the fibrillogenesis of both Aß42 and a-syn, accumulate remodelled oligomeric aggregates that are less effective at disrupting lipid membrane integrity. Our work therefore opens new avenues for developing therapeutic applications of these natural plant extracts in the treatment of amyloidogenic neurodegenerative disorders.

Neuroscience Letters, 2017; 638: 12

Resveratrol Impairs Glioma Stem Cells Proliferation and Motility by Modulating the Wnt Signaling Pathway

Glioblastoma multiforme (GBM) is a grade IV astrocytoma and the most common form of malignant brain tumor in adults. GBM remains one of the most fatal and least successfully treated solid tumors: current therapies provide a median survival of 12–15 months after diagnosis, due to the high recurrence rate. Glioma Stem Cells (GSCs) are believed to be the real driving force of tumor initiation, progression and relapse. Therefore, better therapeutic strategies GSCs-targeted are needed. Resveratrol is a polyphenolic phytoalexin found in fruits and vegetables displaying pleiotropic health benefits. Many studies have highlighted its chemo-preventive and chemotherapeutic activities in a wide range of solid tumors. In this work, we analyzed the effects of Resveratrol exposure on cell viability, proliferation and motility in seven GSC lines isolated from GBM patients. For the first time in our knowledge, we investigated Resveratrol impact on Wnt signaling pathway in GSCs, evaluating the expression of seven Wnt signaling pathway-related genes and the protein levels of c-Myc and ß-catenin. Finally, we analyzed Twist1 and Snail1 protein levels, two pivotal activators of epithelial-mesenchymal transition (EMT) program.

Conclusions: Results showed that although response to Resveratrol exposure was highly heterogeneous among GSC lines, generally it was able to inhibit cell proliferation, increase cell mortality, and strongly decrease cell motility, modulating the Wnt signaling pathway and the EMT activators. Treatment with Resveratrol may represent a new interesting therapeutic approach, to affect GSCs proliferation and motility, even if further investigations are needed to deeply understand the GSCs heterogeneous response.

journal.pone.0169854 January 12, 2017

Ed: Resveratrol is primarily derived from Japanese knotweed, and is available OTC for about $3.50 per month. Imagine what it will cost when made into a prescription medicine…

Maternal multiple micronutrient supplementation and other biomedical and socioenvironmental influences on children's cognition at age 9–12 years in Indonesia: follow-up of the SUMMIT randomised trial

Brain and cognitive development during the first 1000 days from conception are affected by multiple biomedical and socioenvironmental determinants including nutrition, health, nurturing, and stimulation. An improved understanding of the long-term influence of these factors is needed to prioritise public health investments to optimise human development. We did a follow-up study of the Supplementation with Multiple Micronutrients Intervention Trial (SUMMIT), a double-blind, cluster-randomised trial of maternal supplementation with multiple micronutrients (MMN) or iron and folic acid (IFA) in Indonesia. Of 27?356 live infants from birth to 3 months of age in 2001–04, we re-enrolled 19?274 (70%) children at age 9–12 years, and randomly selected 2879 from the 18?230 who were attending school at a known location.

Maternal MMN had long-term benefits for child cognitive development at 9–12 years of age, thereby supporting its role in early childhood development, and policy change toward MMN. The stronger association of socioenvironmental determinants with improved cognition suggests present reproductive, maternal, neonatal, and child health programmes focused on biomedical determinants might not sufficiently enhance child cognition, and that programmes addressing socioenvironmental determinants are essential to achieve thriving populations.

Ed: Mothers who take multi-micronutrient supplements during pregnancy can add the equivalent of up to one full year of schooling to a child's cognitive abilities at age 9-12, says a new study. The micronutrient supplements contained iron, folate, vitamins A, B1, B2, B6, B12, C, D and E, along with niacin, zinc, copper, selenium, and iodine.

Fish Oil–Derived Fatty Acids in Pregnancy and Wheeze and Asthma in Offspring

Reduced intake of n-3 long-chain polyunsaturated fatty acids (LCPUFAs) may be a contributing factor to the increasing prevalence of wheezing disorders. We assessed the effect of supplementation with n-3 LCPUFAs in pregnant women on the risk of persistent wheeze and asthma in their offspring.

We randomly assigned 736 pregnant women at 24 weeks of gestation to receive 2.4 g of n-3 LCPUFA (fish oil) or placebo (olive oil) per day. Their children formed the Copenhagen Prospective Studies on Asthma in Childhood2010 (COPSAC2010) cohort and were followed prospectively with extensive clinical phenotyping. Neither the investigators nor the participants were aware of group assignments during follow-up for the first 3 years of the children's lives, after which there was a 2-year follow-up period during which only the investigators were unaware of group assignments. The primary end point was persistent wheeze or asthma, and the secondary end points included lower respiratory tract infections, asthma exacerbations, eczema, and allergic sensitization.

A total of 695 children were included in the trial, and 95.5% completed the 3-year, double-blind follow-up period. The risk of persistent wheeze or asthma in the treatment group was 16.9%, versus 23.7% in the control group, corresponding to a relative reduction of 30.7%. Prespecified subgroup analyses suggested that the effect was strongest in the children of women whose blood levels of eicosapentaenoic acid and docosahexaenoic acid were in the lowest third of the trial population at randomization: 17.5% versus 34.1%. Analyses of secondary end points showed that supplementation with n-3 LCPUFA was associated with a reduced risk of infections of the lower respiratory tract (31.7% vs. 39.1%), but there was no statistically significant association between supplementation and asthma exacerbations, eczema, or allergic sensitization.

Conclusions: Supplementation with n-3 LCPUFA in the third trimester of pregnancy reduced the absolute risk of persistent wheeze or asthma and infections of the lower respiratory tract in offspring by approximately 7 percentage points, or one third.

N Engl J Med 2016; 375:2530-2539December 29, 2016

Ed: Treatment consisted of just over 2 typical (1000 mg) if OTC fish oil per day. Many health professionals recommend 2000-4000 mg per day.

Clinical and Fecal Microbial Changes with Diet Therapy in Active Inflammatory Bowel Disease.

Inflammatory bowel disease (IBD) is a chronic idiopathic inflammatory intestinal disorder associated with fecal dysbiosis. Diet is a potential therapeutic option for IBD based on the hypothesis that changing the fecal dysbiosis could decrease intestinal inflammation. To determine the effect of the specific carbohydrate diet (SCD) on active IBD, twelve patients, ages 10 to 17 years, were enrolled into a prospective study of the SCD. Patients started SCD with follow-up evaluations at 2, 4, 8, and 12 weeks. PCDAI/PUCAI, laboratory studies were assessed.

Mean PCDAI decreased from 28.1+/-8.8 to 4.6+/-10.3 at 12 weeks. Mean PUCAI decreased from 28.3+/-23.1 to 6.7+/-11.6 at 12 weeks. Dietary therapy was ineffective for 2 patients while 2 individuals were unable to maintain the diet. Mean C-reactive protein decreased from 24.1+/-22.3 to 7.1+/-0.4 mg/L at 12 weeks in Seattle Cohort (nL<8.0 mg/L) and decreased from 20.7+/-10.9 to 4.8+/-4.5 mg/L at 12 weeks in Atlanta Cohort (nL<4.9 mg/L). Stool microbiome analysis showed a distinctive dysbiosis for each individual in most prediet microbiomes with significant changes in microbial composition after dietary change.

Conclusions: SCD therapy in IBD is associated with clinical and laboratory improvements as well as concomitant changes in the fecal microbiome. Further prospective studies are required to fully assess the safety and efficacy of dietary therapy in patients with IBD.

Journal of Clinical Gastroenterology: December 27, 2016

Ed: IBD< IBS and Chron's sufferers are generally aware that dietary changes affect their symptoms, although diet has long been rejected as a factor by western medicine. The authors have tested a specific carbohydrate diet, called SCD, with great success in children. "Usual care" calls for treating IBD patients with steroids or medication, which can often lead to life-long side effects. Another concern is that medication and steroids only suppresses the immune system and don't treat the underlying issue of the microbiome, the bacteria that lives in the digestive tract.

SCD is a nutritionally balanced diet that removes grains, dairy, processed foods and sugars, except for honey. The diet promotes only natural, nutrient-rich foods, which includes vegetables, fruits, meats and nuts. At the end of the 12 weeks, eight out of the 10 patients who finished the study showed significant improvement and achieved remission from the dietary treatment alone.

The casein in cow's milk is well established as an allergen for many people, possibly because the protein molecule "fits" the human milk keyway to gain entry to the blood stream, where it is attacked by the immune system. Researchers theorize that casein (and other allergens) loosen the tight junctions of the cells lining the gut, allowing for other foreign proteins to be problematic as well. Gluten, also currently in the news, may operate in the same way.

Infiltration of the foreign proteins may also result in a loosening of the tight junctions of the blood brain barrier. I've found significant improvement in many ADHD patients by stopping intake of milk containing products, which includes milk, cheese, yogurt, many processed foods and crackers (where the casein binds to water molecules and greatly improves texture).

The specific carbohydrate diet allows:

Vegetables (except canned)

Legumes (except the ones noted below)

Unprocessed meats, poultry, fish, and eggs

Natural cheeses (except those listed below)

Homemade yogurt fermented at least 24 hours

Most fruits and juices without additives

Nuts, peanuts in the shell, natural peanut butter

Oils: olive, coconut, soybean, and corn

Weak tea and coffee

Unflavored gelatin

Mustard and vinegar

Saccharin

Foods and ingredients not allowed on the SCD include:

Sugars: lactose, sucrose, high-fructose corn syrup, fructose, molasses, maltose, isomaltose, fructooligosaccharides, and any processed sugar

All canned vegetables

All grains: anything made from corn, wheat, wheat germ, barley, oats, rye, rice, buckwheat, soy, spelt, and amaranth

Some legumes: chickpeas, bean sprouts, soybeans, mung beans, fava beans, and garbanzo beans

Starchy vegetables: potatoes, yam, parsnips, seaweed products, agar, and carrageenan (used in ice cream)

Canned and processed meats

Dairy: milk, milk products, ice cream, whey powder, commercial yogurt, heavy cream, buttermilk, sour cream, and the following cheeses: ricotta, mozzarella, cottage cheese, cream cheese, feta, processed cheeses, and cheese spreads

Canola oil, commercial mayonnaise, commercial ketchup, margarine, baking powder, and balsamic vinegar

Candy, chocolate, carob

WebMD brands the diet "difficult to follow, it may also be risky for your health" due to presumed reduced nutritional quality. It is difficult to imagine why they consider sugar, candy, grains and grasses, and milk, known to be harmful to adult cows, to be necessary for health. Perhaps it is because they consider the purpose of the diet to be "removing the carbs that are difficult to digest and cause inflammation in the gut" rather than the more correct interpretation to be stopping your body's natural reaction to harmful substances. A cost/benefit analysis of trying this approach is very lopsided- there simple is no cost, and great possible benefit.

If you want to try out this natural approach, keep in mind that you must go 100% free of milk products and grains for several weeks, to stop production of new antibodies and clear your body of them. It is safe and appropriate to consider this diet for several physical and neurological conditions including the GI issues and ADHD, "generalized anxiety disorder," seizures including epilepsy (a similar diet has been used for over 2000 years for seizures), and schizophrenia. Inflammation has been linked to dementia, depression, bipolar disorder and delirium, making these conditions candidates as well.

A moderate increase in dietary zinc reduces DNA strand breaks in leukocytes and alters plasma proteins without changing plasma zinc concentrations

We determined the impact of a modest increase in dietary zinc that was similar to that provided by biofortification programs on whole-body and cellular indicators of zinc status. Eighteen men participated in a 6-wk controlled consumption study of a low-zinc, rice-based diet. The diet contained 6 mg Zn/d for 2 wk and was followed by 10 mg Zn/d for 4 wk.

Total absorbed zinc (TAZ) increased with increased dietary zinc, but plasma zinc concentrations and EZP size were unchanged. Erythrocyte and leukocyte zinc concentrations and zinc transporter expressions were not altered. However, leukocyte DNA strand breaks decreased with increased dietary zinc, and the level of proteins involved in DNA repair and antioxidant and immune functions were restored after the dietary-zinc increase.

Conclusions: A moderate 4-mg/d increase in dietary zinc, similar to that which would be expected from zinc-biofortified crops, improves zinc absorption but does not alter plasma zinc. The repair of DNA strand breaks improves, as do serum protein concentrations that are associated with the DNA repair process.

Am J Clin Nutr ajcn135327

Ed: Since 10 mg supplemental zinc improved DNA repair but didn't increase plasma zinc or EZP, it seems logical that a larger supplemental dose is still needed. I recommend adults take 50 mg of zinc every other day, and children about half that. Zinc is carried in the blood stream by ferritin; taking this much zinc every day could reduce absorption of iron.

Contrary to decades of hype, curcumin alone is unlikely to boost health

as reported by Science Daily

Curcumin, a compound in turmeric, continues to be hailed as a natural treatment for a wide range of health conditions, including cancer and Alzheimer's disease. But a new review of the scientific literature on curcumin has found it's probably not all its ground up to be. The report in ACS' Journal of Medicinal Chemistry instead cites evidence that, contrary to numerous reports, the compound has limited -- if any -- therapeutic benefit.

Science Daily January 11, 2017

Ed: This article was based on a "miniperspective" published in the journal of the American Chemical Society. It found curcumin was poorly absorbed and was not a cure-all. This hardly seems surprising, as there are NO cure-alls in health. "Studies" such as this are typical of the disease chemical industry, which seeks to discredit the benefits of a natural and healthy diet in preventing disease. The denial of the usefulness of naturally derived compounds seems at odds with the promotion of pharmaceuticals, the clear majority of which were derived from these same natural sources. Yes, curcumin is poorly absorbed, because it is not water soluble. Vitamins A, D, E and K are also not water soluble, and must be compounded with fats to be properly absorbed. Yes, curcumin is not a cure-all. The phenolic compounds in it are anti-oxidant, anti-fungal and anti-inflammatory. It will not "cure" a disease, but is health promoting, just as adequate vitamin D plays a role in preventing depression, coffee plays a role in preventing Parkinson's disease, and mental exercise helps slow or prevent memory loss and dementia. The fact that not smoking does not cure lung cancer should not be an excuse to smoke.

Anthocyanin-rich foods may improve hyperlipidemia and ameliorate hepatic steatosis (fatty liver)

Aronia melanocarpa Extract Ameliorates Hepatic Lipid Metabolism through PPAR?2 Downregulation

Nonalcoholic fatty liver disease (NAFLD) is a hepatic manifestation of metabolic syndrome. Studies have demonstrated that anthocyanin-rich foods may improve hyperlipidemia and ameliorate hepatic steatosis. Here, effects of Aronia melanocarpa (AM), known to be rich of anthocyanins, on hepatic lipid metabolism and adipogenic genes were determined. AM was treated to C57BL/6N mice fed with high fat diet (HFD) or to FL83B cells treated with free fatty acid (FFA). Changes in levels of lipids, enzymes and hormones were observed, and expressions of adipogenic genes involved in hepatic lipid metabolism were detected by PCR, Western blotting and luciferase assay. In mice, AM significantly reduced the body and liver weight, lipid accumulation in the liver, and levels of biochemi-

cal markers such as fatty acid synthase, hepatic triglyceride and leptin. Serum transaminases, indicators for hepatocyte injury, were also suppressed, while superoxide dismutase activity and liver antioxidant capacity were significantly increased. In FL83B cells, AM significantly reduced FFA-induced lipid droplet accumulation. Protein synthesis of an adipogenic transcription factor, peroxisome proliferator-activated receptor ?2 (PPAR?2) was inhibited in vivo. Furthermore, transcriptional activity of PPAR?2 was down-regulated in vitro, and mRNA expression of PPAR?2 and its downstream target genes, adipocyte protein 2 and lipoprotein lipase were down-regulated by AM both in vitro and in vivo. These results show beneficial effects of AM against hepatic lipid accumulation through the inhibition of PPAR?2 expression along with improvements in body weight, liver functions, lipid profiles and antioxidant capacity suggesting the potential therapeutic efficacy of AM on NAFLD.

journal.pone.0169685 January 12, 2017

Ed: Aronia melanocarpa is called black chokeberry, a member of the rose family. Anthrocyanin is a water-soluble pigment flavonoid which is red, blue or purple (depending on pH). Highest concentrations are found in berries, grapes, plums, acai and eggplant. Don't try eating berries at home, stick with statins.

Obesity Coverage on Medical Licensing Examinations in the United States. What Is Being Tested?

As one of the most common chronic disease affecting adults and children, obesity is a major contributor to noncommunicable diseases, both nationally and globally. Obesity adversely affects every organ system, and as such it is imperative that the United States Medical Licensing Examination (USMLE) adequately assesses students' knowledge about the science and practice of obesity management. The purpose of this study was to evaluate the coverage and distribution of obesity-related items on the three USMLE Step examinations.

There were 802 multiple-choice items containing obesity-related keywords identified by NBME, of which 289 (36%) were identified as being relevant to obesity and were coded into appropriate domains and subdomains. Among the individual domains, the Diagnosis & Evaluation domain comprised most of the items (174) for all 3 Step examinations. Fifty-eight percent of items were represented by 4 of 17 organ systems, and 80% of coded items were represented by 6 ABOM subdomains. The majority of obesity-coded items pertained to the diagnosis and management of obesity-related comorbid conditions rather than addressing the prevention, diagnosis, or management of obesity itself. Insights. The most important concepts of obesity prevention and treatment were not represented on the Step exams.

Conclusions: Obesity is barely covered in medical training. Exam items primarily addressed the diagnosis and treatment of obesity-related comorbid conditions instead of obesity itself. The expert review panel identified numerous important obesity-related topics that were insufficiently addressed or entirely absent from the examinations. The reviewers recommend that the areas identified for improvement may promote a more balanced testing of knowledge in obesity.

Teaching and Learning in Medicine, 2016; 1

Ed: A medical degree (MD) includes 4 semesters of classes followed by a 2-year practicum. A Pre-med bachelor's degree is not required. Graduates may call themselves "Doctors of Medicine," leaving no special title to those who actually receive a Ph.D.in Medicine. This is not a "Doctor of Health" degree, but rather focuses on diseases and trauma. This is not a degree on nutrition, except in the most severe malnutrition diseases.

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Here's a sample of news stories from this past month:

Talk therapy strengthens brain connections to treat psychosis @mnt, Honor Whiteman

Cognitive behavior therapy is used to help treat a number of mental health conditions, including anxiety, depression, and post-traumatic stress disorder. For the first time, researchers have shown how this type of therapy triggers brain changes to produce long-term benefits for patients with psychosis. Researchers have found evidence to suggest that talk therapy can alter the brain in a way that leads to long-term recovery from psychosis. Lead study author Dr. Liam Mason, of King's College London in the United Kingdom, and colleagues report their findings in the journal Translational Psychiatry. According to the National Institute of Mental Health (NIMH), psychosis describes a set of symptoms "where there has been some loss of contact with reality." Such symptoms include delusions, hallucinations, and confused and disturbed thoughts, and they are often the result of mental illness, such as schizophrenia or bipolar disorder. However, psychosis can also be triggered by other factors, including sleep deprivation and alcohol or drug abuse. Each year, around 100,000 adolescents and young adults in the United States experience a first psychotic episode, and approximately 3 percent of the U.S. population will experience psychosis at some point in their lives. Cognitive behavior therapy (CBT), also termed "talk therapy", is a form of psychotherapy used to treat psychosis and other mental health conditions. It focuses on changing the thinking and behavior that might be fueling such conditions. Past research has suggested that CBT is effective for reducing symptoms of psychosis, and in a previous study, Dr. Mason and colleagues found that CBT can strengthen connections in certain brain regions of patients with psychosis. The researchers built on this finding with their new study, which suggests that the brain connections strengthened by CBT may lead to long-term recovery from psychosis. In their first study, published in the journal Brain in 2011, 22 patients with schizophrenia-related psychosis underwent CBT. Six months before and after CBT, Dr. Mason and team used functional MRI to analyze the brain activity of each participant as they viewed pictures of faces expressing various emotions. Since these participants were already using medication prior to study baseline, they were compared with another group of patients with psychosis who were using medication only. Compared with the medication-only group, the participants that received both medication and CBT showed stronger connections in numerous regions of the brain, including those related to emotion.mFor the new study, Dr. Mason and team used medical records to assess the monthly health of 15 of the 22 participants in the 8 years following CBT. Subjects also completed a questionnaire that asked them about their recovery from psychosis 8 years after receiving CBT, as well as their overall well-being. The researchers found that in the 8 years after CBT, participants had spent around 93.5 percent of months in remission from psychosis and around 88.2 percent of months with low affective psychotic symptoms. Furthermore, the team found that the subjects who showed stronger connections in specific brain regions directly after receiving CBT - particularly in the amygdala and the frontal lobes - had higher psychosis remission rates over the subsequent 8 years.

@BehavioralNews

New MRI method aids long-term concussion prognosis @Medical_Xpress, Pete Farley

For concussion sufferers, even those who never lost consciousness, physicians may now be able to predict early on who is more likely to continue experiencing symptoms months or years after the head-jarring event, using a new non-invasive magnetic resonance imaging (MRI) method devised by a consortium of researchers led by UC San Francisco scientists. In their new study, published online January 13, 2017 in the Journal of Neurotrauma, the researchers used a technique called functional MRI (fMRI), coupled with sophisticated statistical analysis, to track activity in the brain networks of 75 patients, aged 18 to 55, within the first two weeks of their having experienced concussions. The study revealed telltale patterns of brain activity that, six months later, were associated with worse performance on behavioral and cognitive tests and were different from patterns seen in healthy control subjects. The fMRI method and analysis developed for the study highlighted abnormal patterns of brain activity that pointed to a higher risk for long-term, post-concussive symptoms, even among the 44 study participants who had no evidence of bleeding or bruising in the brain in the immediate aftermath of brain trauma on computed tomography (CT) or ordinary MRI scans. "This is an exploratory, proof-of-concept study showing that we can identify patients soon after mild brain trauma who may have more persistent symptoms, despite no other evidence of injury within the brain," said Pratik Mukherjee, MD, PhD, professor of radiology and biomedical imaging at UCSF and the senior author of the study. "We may be able to use this information to help guide treatment decisions and counseling of patients early on, when it may be more effective." Only subjects who had lost consciousness for less than 30 minutes were eligible for the study, and many study subjects never lost consciousness during their injury. Scientists refer to concussion as mild traumatic brain injury (mTBI), but for some patients the harmful, sometimes insidious effects are long lasting. Common symptoms in the aftermath of concussion include confusion, headache, changes in vision or hearing, thinking or memory problems, fatigue, sleep changes and mood changes. Previously there has not been a way to predict whose symptoms will fade or persist following mTBI. Although effective drug treatments for mTBI await discovery, rest and counseling are known to be helpful for patients, Mukherjee said.

Eating Less Makes Monkeys Live Longer Time.com, Alexandra Sifferlin

Calorie restriction—in which people give up food for a whole day or drastically slash their caloric intake for a spell—is an unpleasant-sounding eating pattern. Yet a growing body of science suggests that it may improve health, fight disease and possibly even add years to a person's life. Weighing these potential benefits against the diet's difficult aspect of deprivation has proven tricky, and scientists don't agree on whether people should incorporate fasting into their routine. A recent study published in the journal Nature Communications is the latest to look favorably on calorie restriction. The study is by researchers at the University of Wisconsin–Madison and the National Institute on Aging (NIA), who have been studying calorie restriction for years. In the past, the Wisconsin team found that calorie restriction extended the lives of rhesus monkeys, but the NIA group did not. In the new study, the teams joined forces to understand why their studies found different results, and they ultimately determined that factors such as age and feeding regimens likely played a role. The two groups concluded that calorie restriction does benefit rhesus monkeys, and both studies found that these monkeys have fewer health problems. Aging, it appears, can be targeted by fasting, which might be good news for humans, too, the researchers write. Rhesus monkeys and humans age similarly: Their hair grays and thins, and they can develop diseases like diabetes and cognitive decline. More research is needed to determine if calorie restriction works the same way in humans. "The main take-home is what you eat, and how much you eat, absolutely influences how you age," says Rozalyn Anderson, one of the study authors from University of Wisconsin–Madison. Several researchers are already testing calorie restriction in humans, with notable results. A 2016 study of 218 people who either cut 25% of their overall calories for two years or ate as usual, showed people who fasted lost an average of 10% of their body weight and had improvements in mood and sleep. Other recent research suggests that a low-calorie diet may expose cancer cells to the

immune system so they are more vulnerable to attack and more responsive to chemotherapy. Yet another study last year of mice and humans found a calorie-restricted diet may slow the progression of multiple sclerosis.

Amnesia affecting some opioid abusers **@Medical_Xpress, Steven Reinberg, Healthday**

Short-term memory loss may be yet another price of America's opioid addiction epidemic. Massachusetts health officials reported Thursday a cluster of 14 patients in that state who experienced problems remembering things just told to them. Doctors call this sudden-onset amnesia. The patients also had abnormal results on MRI brain scans. And researchers believe this might be the first sign of a new type of amnesia caused by drug use, likely opioids. "The best thing that could happen is that maybe this would be nothing," said report co-author Dr. Alfred DeMaria Jr., Massachusetts state epidemiologist. "But we are suspicious that something is going on possibly related to substance abuse that was not recognized before." From 2012 to 2016, 14 cases of people with the unusual neurological problem were identified from medical records. Thirteen of the 14 were either actively using substances or had a history of substance abuse, DeMaria said. Twelve said they had used opioids. These drugs include prescription painkillers, such as oxycodone (Oxycontin) and oxycodone and acetaminophen (Percocet), as well as heroin. Six of those with amnesia also said they had used benzodiazepines, which are sedatives commonly prescribed to relieve anxiety. Examples include Klonopin (clonazepam) and Ativan (lorazepam). Another five of those with amnesia had used cocaine, the report revealed. Although this study can't prove that narcotic use caused the amnesia, the number of patients reporting both can't be ignored, DeMaria said. Also, DeMaria said the ages of the patients—19 to 52 years—make it unlikely their memory problems can be attributed to a stroke or dementia. Moreover, the brain abnormalities seen on the MRI scans appear to be caused by a "toxic substance," rather than by damage to blood vessels, he added. "We are concerned that maybe this represents that there is something new going on," DeMaria said.

Dementia: Bilingualism may help brain conserve resources and resist decline **@mnt, Catherine Paddock Ph.D.**

New research published in the Journal of Neurolinguistics suggests that seniors who have been bilingual for years use their brain resources more efficiently and economically than their monolingual counterparts. brain networks. Researchers suggest the findings show that the bilingual brain is more efficient and economical, as it uses fewer - and only specialized - regions when focusing on a task. Researchers at the Université de Montréal in Canada came to this conclusion after studying brain connections in older people with the help of brain imaging. Senior author Prof. Ana Inés Ansaldo, whose laboratory investigates the effects of language processing and aging brain plasticity, says: "After years of daily practice managing interference between two languages, bilinguals become experts at selecting relevant information and ignoring information that can distract from a task." When we are engaged in a task, our brains recruit different networks, depending on the nature of the task. Prof. Ansaldo and colleagues found that when performing a task that requires concentration on a specific piece of information, the brains of monolingual seniors recruited a large circuit with several connections. However, the brains of their bilingual counterparts recruited a smaller circuit that was more relevant to the required information. When concentrating on an object, the brain uses circuits that deal with visual function (color, for example) and motor function (such as spatial information). For the study, the team invited two groups of seniors - 10 monolingual and 10 bilingual - to perform a task during which they had to focus on the color of an object while ignoring its position. The task involved responding to a screen on which yellow or blue squares appeared one at a time and at random, either on the left or the right. Participants were instructed to press a key on the left if they saw a yellow square, and a key on the right if they saw a blue one - regardless of the object's position on the screen. The task tests "interference control," as the participant is challenged not to press a key just because it corresponds to the object's position. It is similar to the challenge of learning to reverse a trailer - to make the trailer go left in reverse, you have to turn

the steering wheel to the right (and vice versa). All participants (10 French speakers and 10 French and English speakers) were born and raised in Montreal and ranged in age from 63-84 years. The age at which the bilinguals acquired their second language ranged from 8-30. As the participants performed the task, the researchers monitored their brain activity using functional MRI. This allowed them to compare functional brain connections in different areas of the brain. The results showed that the brains of the bilinguals had higher connectivity between the visual processing areas situated at the back of the brain. The researchers note that: "These findings support the notion that the bilingual brain is able to deal with interference by allocating fewer and more task-specific resources, as reflected by the support of a smaller, more integrated visuospatial hub."

Autism researchers discover genetic 'Rosetta Stone' @Medical_Xpress

Distinct sets of genetic defects in a single neuronal protein can lead either to infantile epilepsy or to autism spectrum disorders (ASDs), depending on whether the respective mutations boost the protein's function or sabotage it, according to a new study by UC San Francisco researchers. Tracing how these particular genetic defects lead to more general changes in brain function could unlock fundamental mysteries about how events early in brain development lead to autism, the authors say. "The genetics of neuropsychiatric disease is often complicated, but here we have a single gene in which specific mutations can cause either infantile seizures or autism in a consistent and predictable manner," said Stephan Sanders, MD, PhD, an assistant professor of psychiatry at UCSF and member of the UCSF Weill Institute for Neurosciences who is co-senior author of the new study. "This gives us an opportunity to understand both what these disorders have in common and what makes them different." The findings are a first step towards understanding how different subtle changes in neural function in utero could lead to the development of either a seizure-prone brain or an autistic brain in infancy, the authors say. The study also further implicates the gene responsible for these changes—called SCN2A—as the single human gene with the strongest evidence for a causal role in driving ASDs. Matthew W. State, MD, PhD, the Oberndorf Family Distinguished Professor and chair of psychiatry at UCSF, first discovered the link between autism and SCN2A. According to State, who was not directly involved with the new study: "In autism research, understanding why mutations in a single gene can lead not only to ASDs, but to a wide range of other neurodevelopment disorders has emerged as a central question for the field. This new work provides critical clues that begin to unravel this mystery and could serve as a molecular 'Rosetta Stone' to illuminate autism pathology." The study was published online January 26 in Biological Psychiatry. Genome sequencing points to SCN2A mutations as strongest known genetic drivers of autism The advent of whole-exome genome sequencing and the amassing of large, well-defined study populations such as the Simons Simplex Collection (SSC) and the research cohorts assembled by the Autism Sequencing Consortium (ASC), have allowed researchers to make tremendous progress in recent years in identifying genetic risk factors for autism, said Sanders: "In the past four years we've gone from not really knowing how to find autism genes to having a long list of mutations linked to the disorder."

ADHD: Younger children 'may be overdiagnosed' @mnt, Ana Sandoiu

Attention deficit hyperactivity disorder affects millions of children in the United States every year. While it is not yet known what causes the condition, scientists have pointed to a variety of risk factors. New research suggests that a child's birth date may affect the chances of being diagnosed with the condition. A new study suggests that ADHD may be overdiagnosed and overmedicated in younger schoolchildren. Attention deficit hyperactivity disorder (ADHD) is a mental disorder characterized by inattention, hyperactivity, and impulsivity, which all interfere with daily functioning in children. The Centers for Disease Control and Prevention (CDC) report that as of 2011, ADHD has been diagnosed in around 6.4 million U.S. children between 4-17 years of age. While scientists do not currently know what causes ADHD, research has indicated a variety of risk factors. The disease seems to be more common among males than females, with boys being more than twice

as likely to be diagnosed with ADHD. Other risk factors include genetics, brain injuries, low weight at birth, tobacco or alcohol intake during pregnancy, as well as gestational exposure to some environmental toxins. New research, published in the Medical Journal of Australia, suggests that there might also be a connection between children's birth date and the risk of receiving an ADHD diagnosis. A team of researchers, led by Dr. Martin Whitely from Curtin University in Perth, Western Australia, set out to analyze data by year and month of birth from 311,384 schoolchildren divided into two 5-year bands. One group of schoolchildren was aged between 6-10 years and born between July 2003 and June 2008, while children in the other group was aged between 11-15 years and were born from July 1998 through June 2003. Of these, 5,937 children (or 1.9 percent) received ADHD medication, with the boys receiving medication at a higher rate than girls - 2.9 percent compared with 0.8 percent, respectively. The analysis revealed that the youngest children in a school class are more likely to receive ADHD medication than their older classmates. More specifically, from the 6-10-year-old group, children born in June - which is the last month of the recommended school entry age - were approximately twice as likely to receive medication than those born in the first school entry month, which is the previous July. In the second band, comprising children aged between 11-15 years, the effect was less pronounced, but still statistically significant.

Anxiety and depression may be linked to increased risk of death from some cancers @mnt

A study published by The BMJ suggests that higher levels of psychological distress (anxiety and depression) may be associated with an increased risk of death from certain cancers. The findings are observational, so no firm conclusions about cause and effect can be drawn. However, the authors say their findings add to the growing evidence that psychological distress could have some predictive capacity for certain physical conditions. There is some evidence that psychological distress (anxiety and depression) is related to increased rates of cardiovascular disease, but links with different types of cancer are either unclear or untested. So a team of researchers from University College London, University of Edinburgh, and University of Sydney set out to examine if psychological distress is a potential predictor of site specific cancer mortality. They analysed data from 16 studies (13 from England and three from Scotland), which started between 1994 and 2008. In total, 163,363 men and women aged 16 or over and free from cancer at the start of the study, were included. Psychological distress scores were measured using the general health questionnaire and participants were monitored for an average of nine and a half years. During this time, there were 4,353 deaths from cancer. Several factors that could have influenced the results were taken into account, including age, sex, education, socioeconomic status, BMI, smoking and alcohol intake. Dr. David Batty from University College London, the lead author, said: "After statistical control for these factors, the results show that compared with people in the least distressed group, death rates in the most distressed group were consistently higher for cancer of the bowel, prostate, pancreas, and oesophagus and for leukaemia."

Male brains 'overwhelmed' in multitasking test: study @Medical_Xpress

Are women really better at multi-tasking? A study Wednesday said a tricky brain-teaser throws off men's walking gait but leaves most women unfazed, reopening an age-old debate about mental gender differences. On a treadmill, men—and women over 60—started swinging their right arm less while grappling with a complicated language test, researchers found. Language function and right arm swing are both thought to be controlled mainly by the brain's left hemisphere. "Women under 60 seemed to be resistant to this effect, as they were able to perform the verbal task with no change in arm swing," said study co-author Tim Killeen, a neuroscientist from the University Hospital Balgrist in Switzerland. "In men and older women, the verbal task appears to overwhelm the left brain to the extent that the movement of the arm on the right is reduced." The "unexpected" findings were published in the journal Royal Society Open Science. "We were surprised to find such a consistent gender difference in how two relatively simple behaviours—cognitive control and arm swing—interact with one another," Killeen told AFP. The team had set out to study how people walk

@BehavioralNews

under different conditions, aiming to build a database of "normal" gait profiles for treating people with walking disorders. They used infrared cameras to record the treadmill walking patterns of 83 healthy people, aged 18 to 80. The participants were asked to walk—first normally, and then while performing a verbal task called the Stroop test. Developed in the 1930s, the test involves printing the name of a colour—such as "red", "green" or "blue"—in a non-matching colour, then asking a person to say the colour of the ink, not the word itself.

Hormone injection boosts brain activity linked to sexual arousal @mnt, Honor Whiteman

Anxiety, stress, and other psychological factors can be a driving force in sexual dysfunction. In a new study, researchers have identified a hormone that they say could offer an effective treatment for psychosexual disorders. Researchers suggest that a hormone called kisspeptin could help to treat psychosexual dysfunction. The hormone, called kisspeptin, was found to increase activity in areas of the brain normally stimulated by sexual arousal and romantic love. Lead study author Prof. Waljit Dhillo, of the Department of Medicine at Imperial College London in the United Kingdom, and colleagues recently reported their findings in the Journal of Clinical Investigation. Psychosexual disorder is a condition whereby an individual has difficulties becoming sexually aroused or feeling sexual satisfaction as a result of psychological issues, such as stress, anxiety, depression, a history of sexual abuse, or negative body perceptions. Men with the condition may also have problems getting or keeping an erection, while women with the condition may be unable to achieve orgasm or experience pain during sexual intercourse. According to Prof. Dhillo and team, psychosexual disorder is common among couples with infertility, who often experience stress and anxiety due to problems conceiving. "Most of the research and treatment methods for infertility to date have focused on the biological factors that may make it difficult for a couple to conceive naturally," notes Prof. Dhillo. "These of course play a huge part in reproduction, but the role that the brain and emotional processing play in this process is also very important, and only partially understood." The new study, however, suggests that an injection with the hormone kisspeptin has the potential to treat symptoms of psychosexual disorder. Kisspeptin, also known as metastin, is a hormone produced by the hypothalamus. It prompts the release of two hormones - luteinizing hormone and follicle stimulating hormone - which leads to the production of the sex hormones testosterone and estradiol, a form of estrogen. According to Prof. Dhillo and colleagues, studies have shown that kisspeptin is also present in other limbic regions of the brain, such as the amygdala, which are known to be involved in emotional and reproductive behaviors. For their study, the team set out to investigate the role of kisspeptin in limbic brain regions. In particular, they wanted to determine whether the hormone influences emotional behavior in response to sexual stimuli.

How Meditation Helps You Handle Stress Better Time.com, Mandy Oaklander

Stress is a modern mental bogeyman, keeping nearly half of Americans up at night, according to a recent survey from the American Psychological Association. Many say they don't do anything to combat it, yet it takes a toll; stress is linked to a higher risk of heart attack and stroke. Now, there's fresh evidence in favor of mindfulness practices—not just sitting cross-legged in meditation—to help ease stress and anxiety. In a new study published in the journal Psychiatry Research, anxious people who took a mindfulness course where they learned several different strategies reacted to stress better and had a lower hormonal and inflammatory response than people who didn't practice mindfulness. "There's been some real skepticism in the medical community about meditation and mindfulness meditation," says lead author Dr. Elizabeth Hoge, associate professor of psychiatry at Georgetown University Medical Center. She and her team wanted to find out whether people merely felt better after meditating, or if doing so caused real, measurable changes in the body's markers of stress. They rounded up healthy adults with generalized anxiety disorder, marked by constant worry about the future. Half of the people in the study went through a mindfulness meditation training course called MBSR, short for mindfulness-based stress reduction. Half completed a

stress management education course, with lectures on the importance of diet, exercise, sleep and time management. Both courses lasted eight weeks with an identical amount of class time and homework. In the MBSR course, people were taught the elements of meditation that have the most scientific evidence behind them for helping stress. They learn to pay attention to the present moment without judgment through exercises like breath awareness, body scan meditations and gentle yoga. Though the practices have roots in Buddhism, MBSR is non-religious; "you don't have to believe in anything or chant in another language," Hoge says. The classes met weekly for 2.5 hours. The real point of the course isn't to help someone relax in a group environment, however; it's to steel a person against the ravages of in-the-moment stress, and the researchers tested just that. Before the courses started and right after they concluded, the researchers put the participants through a task that reliably stokes stress a stress response: eight minutes of public speaking, followed by a round of videotaped mental math in front of an audience of people in white lab coats with clipboards. "The holy grail is to show that patients can do better under stress," Hoge says. Not only did the people who learned to meditate report feeling less stressed than people in the other class, but their blood measurements of ACTH, a stress hormone released in the brain and then into the bloodstream, were lower too, as well as markers of inflammation called pro-inflammatory cytokines. But in the control group, people were actually more stressed the second time they did the test, possibly because they knew and anticipated how bad the it would be.

Anti-inflammatory diet could reduce risk of bone loss in women @Medical_Xpress, Misty Crane

Anti-inflammatory diets—which tend to be high in vegetables, fruits, fish and whole grains—could boost bone health and prevent fractures in some women, a new study suggests. Researchers examined data from the landmark Women's Health Initiative to compare levels of inflammatory elements in the diet to bone mineral density and fractures and found new associations between food and bone health. The study, led by Tonya Orchard, an assistant professor of human nutrition at The Ohio State University, appears in the Journal of Bone and Mineral Research. Women with the least-inflammatory diets (based on a scoring system called the Dietary Inflammatory Index) lost less bone density during the six-year follow-up period than their peers with the most-inflammatory diets. This was despite the fact that they started off with lower bone density overall. Furthermore, diets with low inflammatory potential appeared to correspond to lower risk of hip fracture among one subgroup of the study—post-menopausal white women younger than 63. The findings suggest that women's bone health could benefit when they choose a diet higher in beneficial fats, plants and whole grains, said Orchard, who is part of Ohio State's Food Innovation Center. "This suggests that as women age, healthy diets are impacting their bones," Orchard said. "I think this gives us yet another reason to support the recommendations for a healthy diet in the Dietary Guidelines for Americans." Because the study was observational, it's not possible to definitively link dietary patterns and bone health and fracture outcomes. Rebecca Jackson, the study's senior author and director of Ohio State's Center for Clinical and Translational Science, said the new findings support a growing body of evidence that factors that increase inflammation can increase osteoporosis risk. "By looking at the full diet rather than individual nutrients, these data provide a foundation for studying how components of the diet might interact to provide benefit and better inform women's health and lifestyle choices," said Jackson, who is national chair of the Women's Health Initiative steering committee.

New study shows old drugs far better at treating bipolar @mnt

A new Deakin University and Barwon Health study has found an old treatment for bipolar is much more effective than a newer medication. The study tested the effects of lithium, a mood stabiliser introduced in the 1970s, compared with those of quetiapine, now a more commonly prescribed alternative, on patients who had had a manic episode for the first time. Lead researcher Professor Michael Berk, Director of Deakin's Centre for Innovation in Mental and Physical Health and Clinical Treatment at Barwon Health,

said lithium seemed to be better than quetiapine in protecting the brain after a first episode of illness. Professor Berk said it was important to independently test the effectiveness of mental health medications, as sometimes their popularity was affected by factors outside of successful treatment. "Mood stabilisers are the mainstay of treatment of bipolar disorder and are essentially used to keep people well," he said. "The oldest drug we have is lithium, but there are some new contenders, principally medicines called atypical antipsychotics, which are usually used for schizophrenia, and quetiapine is one of the best examples. "Lithium has a lot of side effects and the newer agents have gained traction such that they have become first-line and widely used treatments. "Because of its side effects and because of marketing, lithium has gradually fallen out of favour, despite the fact that most guidelines recommend it as a first-line treatment." The study was completed with the support of Orygen, The National Centre of Excellence in Youth Mental Health, The University of Melbourne, Southern Health, and Monash University. Professor Berk said it evaluated people who had a first episode of mania, half were treated with lithium and the other half with quetiapine. Their symptoms and brain scans at the start of the trial, after three and then 12 months were compared. "At the beginning of the study the patients with first episode mania showed reduced grey and white matter in some brain areas compared to the control group," Professor Berk said. "Brain scans on first episode mania patients at three and 12 months showed that lithium was more effective than quetiapine at slowing the progression of white matter volume reduction. "Grey and white matter are the two major compartments of brain tissue. Essentially grey matter are the cells and white matter are the fibre tracts that connect these cells. "The volume of these brain areas is important because there is research that says that some people with psychiatric disorders can lose brain volume and hence, tissue. So, any drug that protects the brain has major theoretical and clinical benefits. "This data therefore supports the continuing use of lithium from the earliest stages of disorder, ideally from the first manic episode, something that challenges some guidelines that propose lithium only for use after several episodes."

February Continuing Education Credit

By Gary Traub, Ph.D.

Get one hour of CE credit by reading this edition of TCP and completing the following questions. E-mail your answers to Dr. John Caccavale, NAPPP, at ***doctorjc1@ca.rr.com***

1. The author of the lead article asserts that most psychotropics are safe with some exceptions. True/false
2. Antidepressants increase risk of hip fractures, cardiovascular problems, and congenital abnormalities. True/false
3. Mercury is the leading cause of autism. True/false
4. In the brain of an individual with autism spectrum disorder, there is an altered expression of genes associated with blood brain barrier integrity, coupled with increased neuroinflammation and possibly impaired gut barrier integrity. True/false
5. Aluminum is found in high concentrations in brain plaques, indicating that it gets past the blood brain barrier. True/false
6. Use of benzodiazepines was associated with an increased risk of stroke in older people with Alzheimer's disease. True/false
7. Antipsychotics increase risk of acute respiratory failure in patients with COPD. True/false
8. The fact that youth with ADHD are given many chemicals confirms that they have more psychiatric comorbidities. True/false
9. A meta-analysis showed that individuals with first episode schizophrenia had decreased fasting plasma glucose levels. True/false
10. In a study on the effects of air pollution, the editor asserts that children who report mood disorders or unfavorable emotional symptoms are more vulnerable to the physiological effects of air pollution. True/false
11. According to the editor, at least what percentage of recipients experience an increase in depression with the use of antidepressants?
12. Amphetamine use can cause an increase in blood pressure and heart rate, and may induce or exacerbate psychiatric illness. True/false
13. Long term, low dose amphetamine use has been shown in multiple studies to increase the rate of Parkinson's in later life by what percentage?
14. Modafinil impairs cognition. True/false
15. People who lived within 50 meters of high traffic roads had a higher incidence of dementia. True/false
16. Mothers who take multi-micronutrient supplements during pregnancy can add the equivalent of one full year of schooling to a child's cognitive abilities at age 9-12. True/false
17. A chronic idiopathic inflammatory intestinal disorder associated with fecal dysbiosis is called _____.
18. Inflammation has been linked to dementia, depression, bipolar disorder, and delirium. True/false
19. Circumin is a compound in _____.
20. Obesity adversely affects every organ system and is therefore a major focus of study in medical school. True/false

Current Listing of Free CE Courses

The following courses are now available free with NAPPP membership. CE credit is provided by NAPPP and alliance partners who are approved sponsors of continuing education by the *National Institute of Behavioral Health Quality* and the *American Psychological Association*. Many states require specific courses for licensure and license renewal. NAPPP courses are designed to meet these requirements. However, members should check with their state statutes to determine specific CE requirements. Contact Dr. Caccavale for details at ***doctorjc1@ca.rr.com***

Psy #1 - Pharmacotherapeutics: 10 CE credit hours

Integration of the principles of psychology in the application of pharmacological agents in the alleviation of mental health concerns.

Psy #2 - Neuropsychological Evaluations: 10 CE credit hours

The selection, administration and integration of neuropsychological data into a comprehensive report.

Psy #3 - Custody Evaluations: 10 CE credit hours

A complete course on the conducting and writing of custody evaluations for the practicing psychologist.

Psy #4 - Forensic Evaluations: 10 CE credit hours

This course will take you through the differing forms of forensic evaluations and discuss the formation of a comprehensive forensic report.

Psy #5 - Treating Childhood Sexual Abuse: 10 CE credit hours

This course discusses the thorough diagnosis and treatment of children who have been sexually abused.

Psy #6 - Domestic Violence - Treatment and Assessment: 10 CE credit hours

The assessment and treatment of domestic violence. Discussion of group and individual treatment is included.

Psy #7 - Ethics & Risk Management: 10 CE credit hours

This course qualifies for an additional 10% discount from NAPPP's preferred malpractice insurer. This is a program that discusses the newest issues facing Psychologists ethically. A thorough discussion of prescription privileges and pharmacopsychology ethics is included.

Psy #8 - Mood Disorders: 10 CE credit hours

A review of the diagnosis of the spectrum of mood disorders along with a discussion of the psychological and pharmacological interventions for each disorder.

Psy #9 - Physiology For Psychologists: 10 CE credit hours

This course covers basic understanding of critical concepts in human physiology, including being aware of indications for referral to other health care providers for treatment and interrelationships between organs/ systems, psychopharmacology, and psychopathology.

Psy #10 - Issues In Postpartum Disorders: 10 CE credit hours

A review of the evaluation and diagnosis of postpartum disorders. A review of the relevant literature is included.

Psy #11 - Doing Pre-Marital Counseling: 10 CE credit hours

Dr. Sandra Levy Ceren details how to do pre-marital counseling. This course is built upon Dr. Ceren's many years of experience and is replete with case studies.

Psy #12 - Mastering Medical Terminology For Psychologists: 10 CE credit hours

This course is designed for Psychologists who want to learn and master medical terminology. This course will allow clinician's to communicate effectively with medical practitioners. A must for clinicians who regularly work with medical practitioners.

Psy #13 - Caring For The Elderly: 10 CE credit hours

This course is a basic course designed for Psychologists who want to learn additional skills related to diagnosing and treating the elderly patient. Particular attention is devoted to dementias.

Psy #14 - Diagnosing and Treating Substance Abuse: 10 CE credit hours

A basic understanding of diagnosing and treating patients with substance abuse problems. The course focuses on alcohol abuse but does cover the abuse of

other substances including prescription drugs.

Psy #15 - Ethics II: 4 CE Credit hours

This 4 unit course is for those Psychologists who do not require the more extensive 10 unit course.

Psy #16 - Introduction To Medical Psychology: 10 CE Credit hours

A basic course in medical psychology for Psychologists. Reading materials focus on the understanding and treatment of diseases and illnesses that Psychologists can treat.

Psy #17 - Primary Care Psychology: 15 CE Credit hours

An introduction to how clinical psychology is practiced in a primary care setting. Reasons for integrating psychology into primary care are discussed along with treatment models and the different aspects of practice in a primary care setting.

Psy #18 - Forensic Practice: 15 CE Credit hours

An introduction to the practice of forensic psychology for Psychologists who want to expand their services into this area of practice. Topics include psychological evaluations for the court (child custody; competency; insanity), psychological factors in eyewitness testimony, trial consultation, and criminal investigation.

Psy # 19 - Clinical Supervision: 6 CE Credit hours

Ethically and legally, supervisors are responsible for patient care as well as the training and development of their supervisees. Supervision becomes a balancing act between the needs of the patient population and the needs of the supervisee. This course will help you do your job better and give you skills to rely on in your supervision of interns.

Psy # 20 - Neurology For Psychologists: 15 CE Credit hours

An introduction to basic neurological practice for Psychologists. It provides participants with a thorough understanding of the structure of the nervous system. Topics include: performing a competent neurological work-up, basic description and components of typical neurological disorders, behavioral neurology, muscle disorders, sensory disorders, and ethical issues in practice.

Psy #21 - Understanding The Affordable Care Act: 15 CE Credit hours

This course presents a thorough presentation of the new healthcare reform laws and how both patients and practitioners will be affected as the new rules and regulations are implemented. This is a must course for those wanting to get the most out of these reforms.

Psy #22 - Entrepreneurship For Psychologists: 10 CE credit hours

An introductory course for Psychologists who want to expand their knowledge about the opportunities and benefits of becoming an entrepreneur in mental health. With the new Affordable Care Act now law, there are many opportunities for Psychologists if we can learn the concepts and success behind entrepreneurship. This is what has been missing from graduate psychology education.

Psy #23 - Crisis Management Intervention Consulting: 15 CE credit hours

This course is designed for clinical Psychologists who want to develop a significant and workable knowledge base to provide crisis management consulting services to municipalities and private organizations. It will also serve the function of providing practitioners with a good knowledge base to understanding crisis management interventions.

Basic Neuropsychology (10 Contact Hours)

This course is designed to introduce clinical psychologists to basic neuropsychological evaluation. It provides participants with a substantive understanding what constitutes a neuropsychological workup. Psychologists who complete this course will learn how to identify important neuropsychological disorders and how to evaluate dysfunction. This course is an introduction to what neuropsychology is but it is not intended to convey or imply certification as a neuropsychologist.

Interpreting Blood Panels For Psychologists (6 contact Hours)

Having an understanding about these tests and what they mean is essential to all healthcare providers. This course is designed to provide psychologists with general information to assist in their practices and professional development. The information provided in this course is based on research and consultation with medical and other authorities, and is, to the best of our knowledge, current and accurate. .

HOW TO WRITE A BRILLIANT SUBMISSION

by David Reinhardt, Ph.D. and Elle Walker, Psy.D.

There is a famous proverb, "He who fails to plan, plans to fail." It's easy to notice when a submission (even with the best intentions) has not been planned well or organized. An organized and structured writing piece shows our readers (and editors!) that your arguments are clear, concise and coherent. Hopefully with careful planning and the application of the following tips, a great submission will not be far behind!

Please keep in mind that The Clinical Practitioner is the public face of NAPPP. Internal discussions, squabbles, rants and raves, politics and so on are best submitted to the members' listserv. Although we entertain political discussions within our ranks only official policy positions will appear in TCP.

We Welcome Member Submissions!

NAPPP is a practice organization. Please keep all submissions to practice issues.

All Submissions regardless of type should be proof read, spell checked, grammar and punctuation checked. Minor editing can be done to prepare a submission for print; However, if more than minor corrections are needed the submission will unfortunately have to be returned.

Technical Considerations

1. Please attach submissions to your email as Word files (.doc), unless you have checked with us about other formats.

2. Use standard fonts. We have found Verdana and Georgia to be the most readable in electronic format.

3. If your submission must have special characters or fonts, please embed these in your document.

4. If your submission includes objects (pictures, graphs, drawings, etc.) these MUST be included as separate files.

5. Please include technical references and links as appropriate.

Letter Submissions

We welcome short submissions which deal with issues such as insurance and billing, reports on published research, reports on conventions attended, the business of practice, interesting solutions to patient problems, and other practice related topics.

1. Please make submissions @50-150 words.

2. The editors will select submissions based on relevance and space needs.

Submissions for feature articles

We will consider feature articles of any length dealing with practice issues, "How To" articles, and any topic directly relating to practice. Please submit your article ideas to ***editor.theclinicalpractioner@gmail.com***

1. A brief statement of topic and short outline of your proposal will allow us to guide you on article development.

2. Articles can be any length. Please have your editor check that every sentence has a purpose and appropriate structure.

3. An Introductory Paragraph introducing your subject and main Idea of your article is a MUST.

4. Supporting Paragraphs that develop the main idea of your topic:

-Should list the points that develop the main idea of your article

-Please place each supporting point in its own paragraph

-Develop each supporting point with facts, details and examples.

5. End with a Summary Paragraph or Conclusion and do this by:

-Restating the strongest points that support the main idea

-Conclude by restating the main idea in different words

-Give a personal opinion or suggest a plan of action.

Keep in mind that readers will only continue as long as they are presented with new information. Do not rehash information or ideas, but do summarize in the final paragraph(s).

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A Board Certification for Clinical Psychologists

ABBHP diplomate status in behavioral healthcare practice recognizes a set of specialty skills within general healthcare. The diplomate recognizes experience and skills in working with behavioral health problems in ways that are coordinated with allopathic medicine. The Specialty of Behavioral Healthcare Practice integrates behavioral health into medical care in diagnosing, treating and providing the necessary monitoring of post-treatment behavioral follow up care.

Board certification by ABBHP is an indication to both patients and providers that you are a specialist in providing behavioral healthcare diagnoses and treatments. Our board certification, the first of its kind, tells the public and your referral sources that you are a specialist and partner in the primary care of patients.

Requirements

The ABBHP board certification is not a vanity board. It was designed by an experienced and influential board to be rigorous and to ensure the public, healthcare providers and the healthcare industry that those who possess this diplomate have achieved a high level of training and experience in providing behavioral healthcare services. Those possessing ABBHP certification are making a statement that they are behavioral healthcare practitioners who work and belong in the healthcare industry. ABBHP diplomates are doctoral level Psychologists who provide much more than psychotherapy services but can provide a wide range of interventions that only a doctoral level Psychologists can. For information on qualifying for board certification, please go to *http://www.abbhp.org/*

Summary of Requirements

Current and valid license to practice psychology.

Successfully pass an examination.

Complete specific coursework.

Provide a product sample.

Provide letters of recommendation

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Continuing Education Providers-

Are you a current continuing education provider or want to be one? Then NIBHQ accreditation of your organization will attract behavioral healthcare professionals to your courses.

Our requirements for CE providers can be obtained at

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NIBHQ

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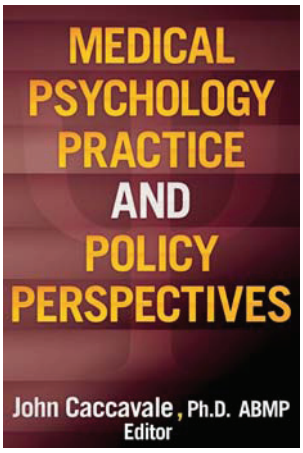

Book Description
In 2009, over fifty-two million prescriptions for antipsychotic medications were written, totaling over $14.6 billion in sales. Such is just one small indication of how our current medical system treats its patients with medication as a first-line approach. This is not the answer. There is a growing need for integrated health care systems which include psychological care, particularly those services provided by medical psychologists. Medical psychologists are not physicians, but they do many of the same things that physicians do or should be doing. Medical psychologists are also doing things that clinical psychologists have never done. A medical system which profits from and relies primarily upon medication is not sustainable, especially when these medication-only treatments may be at the least ineffective and, at worst, harmful to patients.
This reader seeks to define medical psychology's place in this complex and challenging environment.

To purchase the book, click here: http://www.nappp.org/book.html

Nicholas A. Cummings: Psychology's Provocateur

This book is not only a biography of professional psychology's innovator and visionary. It is a book that documents the long history and struggle of professional psychology. Dr. Nicholas Cummings, "Nick" to so many of his friends, has been at the front lines of taking and making the fight for psychologists to be recognized and included in the healthcare system. Nick's biography is the biography of every psychologist. It is our history and, absent the accomplishments of Nick Cummings, there is no doubt that professional psychology would not exist.

The Cummings Foundation is making copies of the book FREE of charge to TCP readers who would like one for the $5.00 shipping charge, only. If you would like your free copy of the book, email Linda Goddard at lgoddard0@gmail.com and she will arrange to have the book sent to you. A faster way to get your copy is to send a check for $5.00 to:

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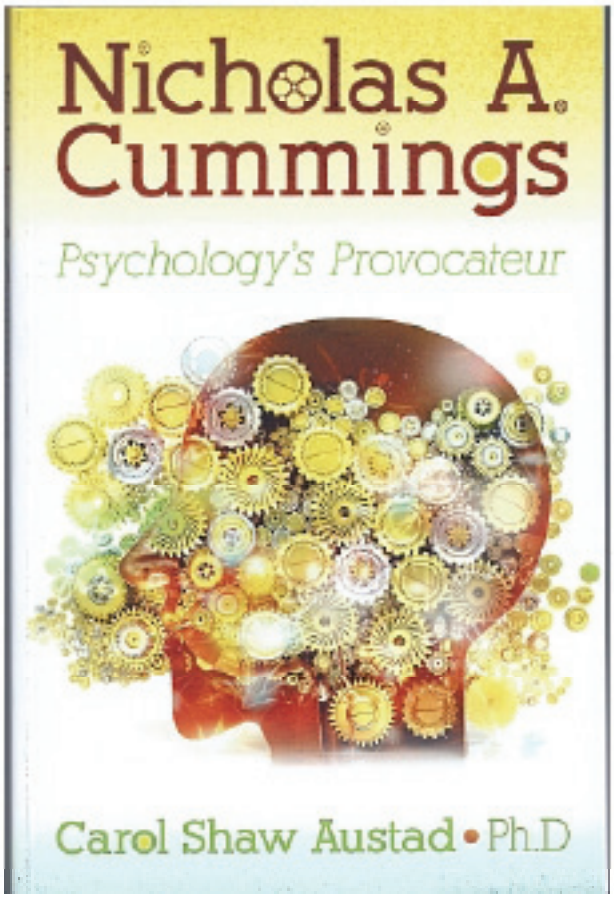

Handbook of Health and Behavior: Psychological Treatment Strategies for the Nursing Home Patient

BY JOSEPH M. CASCIANI, PHD

This *Handbook of Health and Behavior* gives readers a portable and concise reference tool to help nursing home patients better manage and cope with their medical conditions. It places an emphasis behavioral health principles and approaches, using *health and behavior CPT* codes, and helps psychologists function within an integrated care model by raising the profile of behavioral health services in these settings. It can serve as a guide for health care professionals whose older patients face psychological barriers to the treatment of their medical problems.

The *Handbook* is published by Concept Healthcare, LLC and can be ordered at Amazon, Lulu.com, or take a 30% discount and scan and email this form to orders@cohealth.org.

CONTENTS

Joseph M. Casciani, PhD, is the President of Concept Healthcare, LLC. He has a 30-year career in long term care as a geropsychologist, manager of psychology practices, and program developer. He is the co-founder and former executive officer of a national mental health group practicing in nursing homes in eight states.

Dr. Casciani is the co-editor of *Geropsychology and Long Term Care: A Practitioner's Guide* (Springer, 2006), a former Board member of the *Council of Professional Geropsychology Training Programs*, and Past President of Psychologists in Long Term Care.

His current company, Concept Healthcare, is the management services organization for professional corporations delivering mental health services to LTC facilities in four states.

In 2014, Concept Healthcare was acquired by another company with the goal of expanding Concept Healthcare's LTC work into additional states, adding EMR, and other practice efficiencies.

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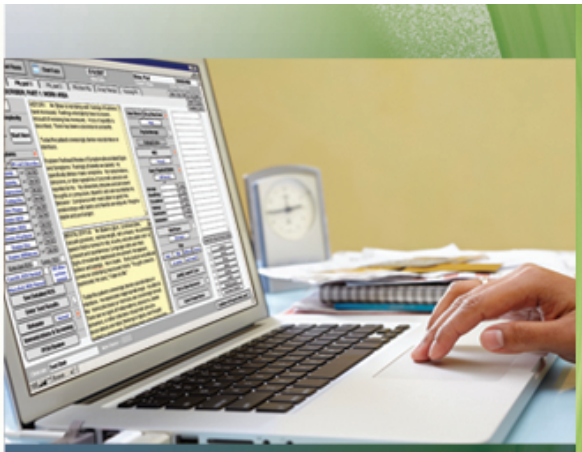

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